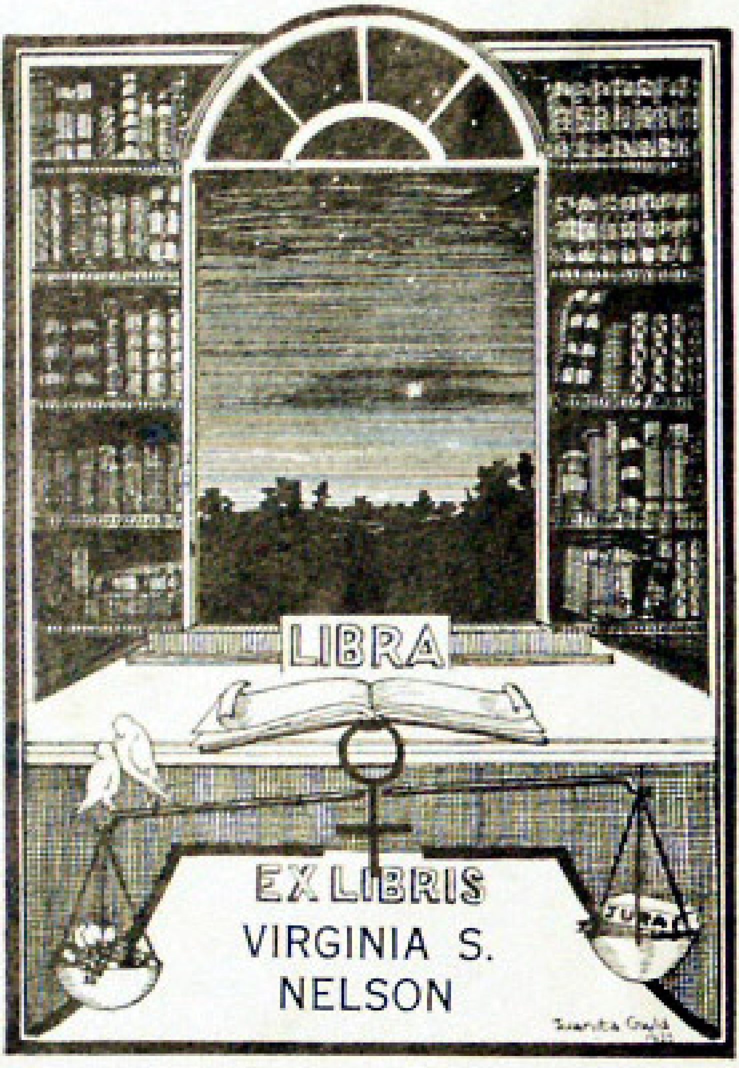
FLORIDA
OF TO-DAY

BY J. W. DAVIDSON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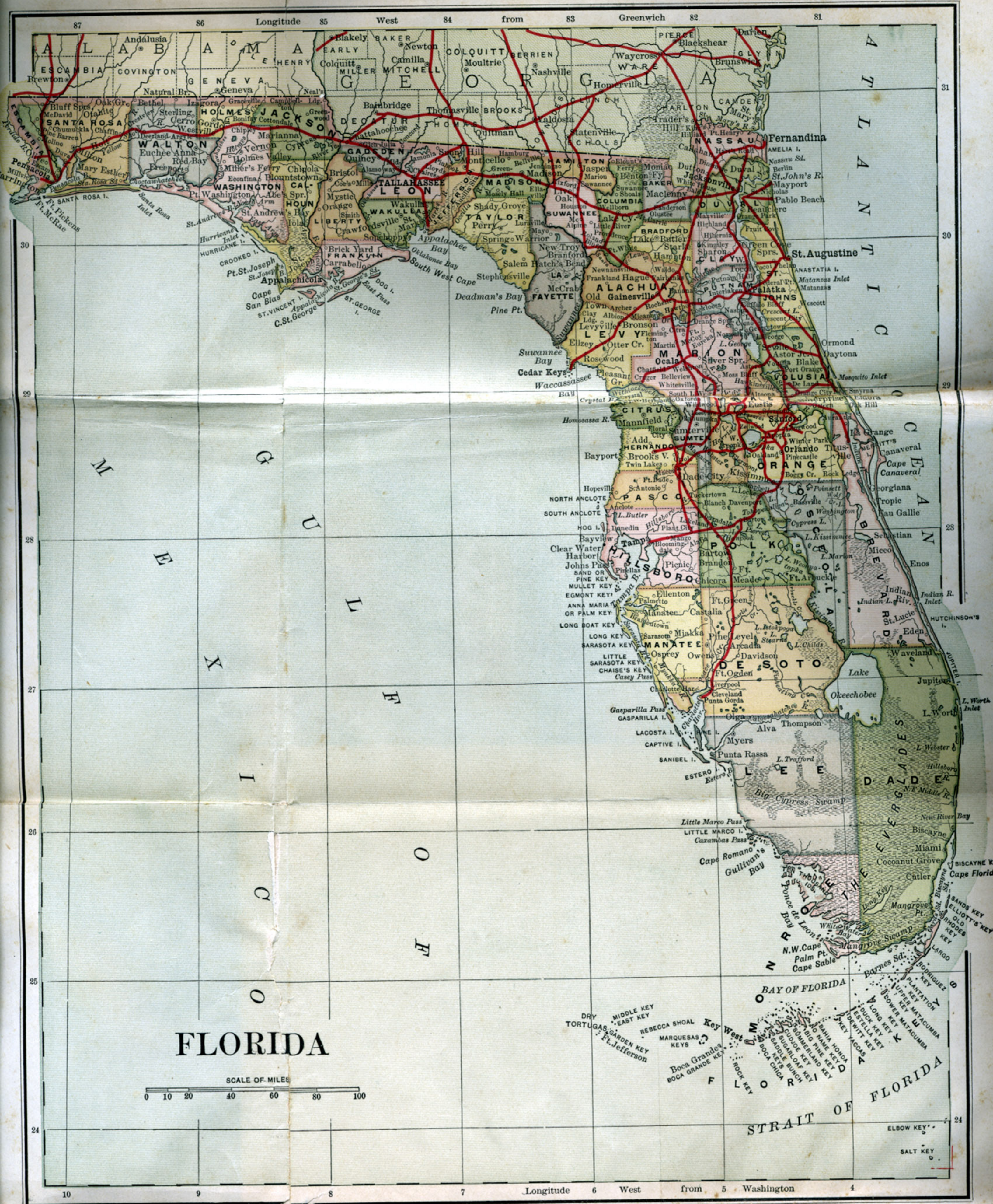
FLORIDA
SCALE OF MILES
0 10 20 40 60 80 100
Longitude West from Greenwich
87 86 85 84 83 82 81
Longitude West from Washington
10 9 8 7 6 5 4
31 30 29 28 27 26 25 24
ALABAMA
GEORGIA
GULF OF MEXICO
ATLANTIC OCEAN
STRAIT OF FLORIDA
BAY OF FLORIDA
FLORIDA KEYS
ESCAMBIA
SANTA ROSA
WALTON
HOLMES
JACKSON
WASHINGTON
CALHOUN
GADSDEN
LIBERTY
FRANKLIN
WAKULLA
LEON
JEFFERSON
MADISON
TAYLOR
HAMILTON
SUWANNEE
LAFAYETTE
COLUMBIA
BAKER
NASSAU
DUVAL
BRADFORD
CLAY
ST. JOHNS
PUTNAM
ALACHUA
LEVY
MARION
VOLUSIA
CITRUS
SUMTER
LAKE
ORANGE
HERNANDO
PASCO
HILLSBORO
POLK
OSCEOLA
BREVARD
MANATEE
DE SOTO
LEE
DADE
MONROE
Pensacola
Tallahassee
Jacksonville
Fernandina
St. Augustine
Palatka
Gainesville
Ocala
Sanford
Orlando
Tampa
Key West
Cedar Keys
Apalachicola
Lake Okeechobee
THE EVERGLADES
Big Cypress Swamp
Cape Sable
Cape Romano
Cape Canaveral
Cape San Blas
Miami
Biscayne
Punta Gorda
Myers
Bartow
Dade City
Kissimmee
Titusville
Daytona
Ormond
Tortugas
Ft. Jefferson
Marquesas Keys

THE

FLORIDA OF TO-DAY

A GUIDE FOR TOURISTS AND SETTLERS

BY

JAMES WOOD DAVIDSON, A. M.

AUTHOR OF "THE LIVING WRITERS OF THE SOUTH";
"A SCHOOL HISTORY OF SOUTH CAROLINA"; "THE CORRESPONDENT";
"THE POETRY OF THE FUTURE," ETC.

WITH MAPS AND ILLUSTRATIONS

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THE FLORIDA OF TO-DAY.

I.

HISTORY.

THE early history of Florida—its discoveries, conquests, reconquests, cessions, and retrocession—is as varied and spirited as a romance.

Discoveries.—It is agreed generally among the historians that Ponce de Leon was the first of the several discoverers. This romantic and enterprising adventurer, hunting the phantasmal Isle of Bimini—one writer calls it Boiaca—with its precious fountain of youth, failed indeed to find that, but reached the coast of Florida just north of where St. Augustine now is, on Easter-Sunday, the 27th of March, 1512. He landed the 2d of April, and named the country, known to the Indians as Cautio, FLORIDA, from Pascua Florida, the day of his discovery. Mr. Fairbanks, however, states that the discovery was made on *Palm*-Sunday. Ponce de Leon did little else on that occasion than to land, erect banners, and baptize the fair land of flowers.

Florida was next discovered by Miruelo in 1516. He got, it is said, some pieces of gold from the natives, which, on his return to Cuba, the general base of operations for the Spaniards at that early date, created great excitement among the gold-hungry adventurers of that day.

The next year, 1517, De Cordova led an expedition of Spaniards to the new El Dorado; but he was speedily driven off, and returned to Cuba to die of his wounds.

The same year Alaminos came with three ships, landed twice, found no gold, and was soon driven away.

In 1521 Ponce de Leon made another invasion of Florida; but he found no gold, was baffled and wounded, and returned to Cuba to die, as De Cordova had done.

Seven years later the Spanish fortune-hunters began to discover and to invade Florida on the western side. De Narvaez, in April, 1528, led an expedition of about four hundred men and eighty horses, which landed in Clear Water Bay. He landed with three hundred men and the horses, and marched northward along the Gulf-shore, having ordered his vessels to coast along apace with his marching troops. The arrangement was a failure. The ships lost sight of the troops, and, baffled in every effort to find them, months afterward returned to Cuba. The three hundred troops were all, in one way or another, destroyed, except four. These four remained seven years in the El Dorado, became "medicine-men" among the Indians, and finally worked their way back, crossing the Mississippi River, to the Spanish settlements in Mexico. One of these, Cabeça de Vaca—the veritable discoverer of the Mississippi River—wrote an account of these stirring events. While the ships were yet lying at Clear Water, a Spaniard, Juan de Ortiz, rashly ventured ashore, and was left there a prisoner among the Indians, known then as Mariannes. He remained there eleven years—until the next discoverer came along—and had a sort of John Smith experience with a Floridian Pocahontas and Powhatan. The name of the interesting heroine of this adventure seems to have perished, but the Powhatan was named Hirrihigua.

In 1539 De Soto, with a thousand men and three hundred and fifty horses, landed in what is now Tampa Bay, which he christened Espiritu Santo. Upon landing, he found De Ortiz, mentioned above, who acted as his guide; but, as it turned out, he knew almost nothing about the country. De Soto was in quest of reported "great store of crystal, gold, and rubies, and diamonds," that lay somewhere to the northward. He sent his vessels home, and set out overland to the region of treasures, wherever that might be. He reached Chicora, or Chicola—South Carolina, perhaps—then turned westward, and passed beyond the Mississippi River, which had been discovered years before, and named Rio Grande, by De Vaca. De Soto returned to that river, died there, and was buried beneath its paternal waters. Just three hundred and eleven of his thousand men finally reached Mexico.

In 1545 a treasure-ship, sailing from Mexico for Spain, was wrecked on the eastern coast of Florida, and about two hundred persons escaped to the land, and thus unwittingly discovered Florida again. The most of these were murdered by the gentle Stoics of the woods, and the rest were enslaved. About twenty years later one of these slaves made his way to Laudonnière's settlement, at the mouth of the St. John's River, and a few others reached the colony of Menendez at St. Augustine.

In 1549 four Franciscan friars landed at Tampa Bay, with the idea of evangelizing the stoical aborigines, but the noble savages tomahawked three of them, and thus convinced the fourth brother that that kind of a conquest of Florida was impracticable—at that time.

Ten years later, De Luna set out from Vera Cruz with fifteen hundred adventurers and a large number of zealous priests; the former to pick up fortunes, and the latter to preach the gospel of peace to the cut-throat barbarians. He landed at the Bay of Pensacola, then called Santa Maria, pitched a camp there, marched into the interior, accomplished the loss of a good many men, and was ordered home.

In 1562 Ribault came from France with two vessels and a colony of Huguenots, and made land near St. Augustine; thence coasted northward, discovered the St. John's River, which he christened the May, and erected a monument of stone engraved with the arms of France. He soon re-embarked, and proceeded to make a settlement at Port Royal, South Carolina.

In 1564 Laudonnière brought a still larger colony of Huguenots, landed where St. Augustine now stands, but promptly re-embarked and sailed to St. John's Bluff, and there built Fort Caroline. This colony struggled on for a year, and, becoming disheartened, were preparing to return to France, when, in August, 1565, Ribault arrived with about six hundred and fifty other Huguenots, some having families.

Settlement.—The same year brought Menendez, who arrived in July, 1565, at St. Augustine. Upon his arrival he heard of Ribault and his Huguenots at Fort Caroline, and promptly pursued his vessels, but without success. He then returned to St. Augustine, and built solid fortifications. Ribault rallied quickly, and set out to capture Menendez before he could complete his defenses; but the French were driven south, and finally wrecked near Matanzas. Menendez was equal to the occasion, and, taking advantage of the situation, attacked and captured Fort Caroline. He hanged a number of his French prisoners upon trees, and put this inscription over their hanging bodies: "*Non por Franceses, sino por Luteranos.*" The victor rechristened the fort San Mateo, returned to St. Augustine, there first heard of Ribault's shipwreck, hastened down to Matanzas Inlet, captured Ribault's straggling party, and, under the banner of the cross, butchered them to a man.

This closed the efforts of the French to hold a colony in Florida proper.

Menendez held his post at St. Augustine, and this doubtless was the first permanent settlement of Europeans in the United States.

In 1567 a gallant Frenchman, De Gourgues, got up an expedition to avenge the brutal massacre and insult of his compatriots by the Spaniards at Fort Caroline. With three small vessels and a hundred and eighty-four men he came to Florida, adroitly secured the co-operation of the natives, and with these combined forces he surprised Fort San Mateo—the old Fort Caroline—and captured the entire garrison. He turned the merciful aborigines in upon the Spaniards, and a few survived. These De Gourgues hanged upon the same trees that Menendez had used for the Huguenots, and on a pine board over the corpses he wrote, "I do this, not as to Spaniards, nor as to outcasts, but as to traitors, thieves, and murderers." The avengement was complete.

St. Augustine, meanwhile, was held continuously by the Spaniards; but holding was about all they did, except fighting off Indians. In 1647 the city contained three hundred families. It was twice captured and burned down—once by Sir Francis Drake, who was returning from a freebooting expedition in the Spanish Main, and once, in 1665, by Captain John Davis, a buccaneer.

Spain claimed that Florida embraced all the territory as far north as Virginia and westward to the Mississippi River—in those early Spanish days known as the Rio Grande. Accordingly, when the English and Scotch began to colonize the Carolinas, the Spaniards began to fight them as intruders; and the Indians joined whichever side promised them the most blood. Under this feeling, in 1676, the Spaniards sent a force to wipe out the English settlement at Charles Town, on the Ashley River; but the expedition failed utterly. Again, in 1678, another Spanish force was sent for the same purpose; and this one murdered many of the English colonists, pillaged a few plantations, and did a deal of petty damage.

In 1696 the Spaniards, under D'Arriola, made a settlement where Pensacola is; and, where Fort Barrancas now stands, they built their Fort Carlos, a church, and some dwellings.

In 1702 the English Governor Moore, of South Carolina, captured and burned St. Augustine, but failed to reduce the fort; and in 1703 he laid waste the Indian towns in Middle Florida which were under Spanish protection, so called.

The Pensacola settlement was destroyed by the French in 1718; and the Spaniards, in 1722, built on Santa Rosa Island, where Fort Pickens now stands, and rebuilt Pensacola.

These alternations of colonizing, building, capturing, rescuing, burning, rebuilding, reburning, and so on, were kept up between the Spaniards and French in animated style for several years. Indeed, nothing else seems to have received any attention. The banner of the cross of peace waved over the land, and the tomahawk kept the soil moist with blood.

St. Marks was settled by the Spaniards in 1718.

Spanish Florida had three aggressive and troublesome enemies—the English in Carolina and Georgia on the north, the French in Louisiana on the west, and the aboriginal tomahawks all around them.

In 1743 the English Governor Oglethorpe, of Georgia, invaded Florida, and offered battle under the walls of St. Augustine; but the Spanish *adelantado* Montiano, declined to go out, and Oglethorpe declined to go in—so there was but little bloodshed.

Cession to Great Britain.—The treaty of peace of 1748 between Great Britain and Spain closed these alternating forays and filibusterings. When this treaty was broken by the war of 1762, the British captured Havana; and in the treaty following, in 1763, Great Britain gave Cuba to Spain in exchange for Florida. Thus Florida became a British possession, and enjoyed a rest from Spain's magnificently little conquests of empires that had been going on so long.

The Spaniards, during their two hundred and fifty years of occupancy, had achieved little beyond their numerous ostentatious conquests of nothing, much bloodshed and brutality, and a profound ignorance of the country and its resources. At the date of the cession the European population of the territory was about six thousand five hundred; and of these many left the country at the transfer.

The first British Governor, James Grant, took steps promptly to develop the country. Roads were cut, colonization encouraged, and bounties offered for indigo and other productions. Dr. Turnbull and Sir William Duncan brought into the territory about fifteen hundred Minorcans and Greeks, and made a settlement near New Smyrna, in Volusia County.

Florida took no part in the war of secession in 1776 known as the American Revolution, and was a place of refuge for thousands of loyalists from the battling States, as it was later for fugitive slaves from the adjacent States.

Upon the breaking out of war between Great Britain and Spain in 1779, the Spanish Governor of Louisiana invaded Florida and captured Pensacola in 1781.

Retrocession to Spain.—In 1783, upon the close of the war, Great Britain exchanged Florida for the Bahama Islands, owned by Spain, and thus Florida returned to Spanish rule. The British settlers promptly moved out, and Spanish lethargy settled over the country again.

In 1814, during the late war, the British sent a fleet to Pensacola and captured the forts there; and General Jackson was sent to oust them. He stormed the forts and destroyed them. In 1818 General Jackson again invaded Florida, in order to check and chastise the Seminoles.

Cession to the United States.—In 1819 a treaty between Spain and the United States was concluded, and ratified in 1821, by which Florida was ceded to the latter power.

Territory of Florida.—In 1822 the Congress of the United States established the Territory of Florida, with its capital at an old Indian settlement or camp called Tallahassee, although the first Legislative Council met at Pensacola, and the second at St. Augustine.

The Territorial Governors, with the beginnings of their terms, were: Andrew Jackson, 1821; William P. Duval, 1822; John W. Eaton, 1834; R. K. Call, 1835; Robert Raymond Reed, 1839; R. K. Call, 1840; John Branch, 1844.

Seminole Wars.—It was mainly during the territorial period that the worst of the Seminole wars occurred. These wars were full of stirring and tragic events, and but little variety relieved their bloody monotony. A detailed account of them is wholly unnecessary here. Speaking of the earlier Indian conflicts at the beginning of the eighteenth century—up to about 1720—Mr. Fairbanks makes this comparison: "In every New England household the story of the sufferings of the Williams family, of the Dustins, and of Miss McCrea, excited the most tender emotions of pity. The history of the Southern colonies presents hundreds of such instances." If it was hundreds then, it is thousands now. It is within reason to say that the history of Florida itself, as a Territory and as a State—1821 to 1860, say—can give a score of such tragedies for every one so graphically told in the school-books of all the New England States. But these have not yet been celebrated in song and story. Many have not been written at all, and are thus far recorded only in the hearts and memories of this silent Southern people.

Peace with these Indians is perhaps an impossibility, and had never really existed; but the most important outbreak, known as the Seminole War, began with the Dade massacre in South Florida in 1835, and closed with the so-called treaty of 1842. But there has been much fierce fighting outside of that period both before and after. The word *massacre* fitly describes the destruction of Major Dade's battalion in Sumter County. After the last man had fallen, Mr. Fairbanks states, "the Indians then rushed into the breastwork, headed by a heavy painted savage, who, believing that all were dead, made a speech to the Indians. They then stripped off the accoutrements of the soldiers and took their arms, without offering any indignity, and retired in a body." The story closes with these words: "Soon after the Indians had left, about fifty negroes galloped up on horseback and alighted, and at once commenced a horrible butchery. If any poor fellow on the ground showed signs of life, the negroes stabbed and tomahawked him. Lieutenant

Basinger, being still alive, started up and begged the wretches to spare his life; they mocked at his prayers, while they mangled him with their hatchets until he was relieved by death. After stripping the dead, the negroes shot the oxen and burned the gun-carriages." One man, by something like a miracle, escaped to tell the story.

There have been several causes assigned for the Indian's hostility to the white man—encroachments of the whites, individual wrongs to property, especially cattle, etc.; but the great underlying and essential *causa causans* has been the innate bloodthirst of the savages. The killing is sweet to them. This has shown itself ever since the Easter-Sunday in 1512 when De Leon, the fountain-hunter, first sighted the blooming shores of Cautio.

During these wars the savages have times and again made agreements and treaties so called, only to gain time or to put the whites off their guard, and then resume hostilities whenever and wherever they could find a white throat convenient to cut. And yet the whites trusted them again and again. Governor Reed, in 1839, in his message to the Legislature, said: "The close of the fifth year will find us struggling in a contest remarkable for magnanimity, forbearance, and credulity on the one side, and ferocity and bad faith on the other. We are waging war with beasts of prey. The tactics that belong to civilized nations are but shackles and fetters in its prosecution. We must fight fire with fire."

Gallant officers with brave soldiers were sent to quell the brutal work of Indian murder and pillage—Jackson, Clinch, Dade, Macomb, Belknap, and others—and all were baffled. Some of them fought well, and had edifying talks, and secured excellent treaties; but the Seminole was master of the situation practically, until General Worth went in 1841.

Our forces had captured Coacoochee, a chief, and several of his braves, and they were *en route* for the West, when General Worth sent to New Orleans and had the party returned to him at Tampa. The interview between the general and Coacoochee took place on a transport in Tampa Bay, on the morning of the 4th of July, 1841. The general and his staff were seated, and the chief and his companions came forward heavily ironed, and sat down on the deck. General Worth advanced, and, taking the chief by the hand, said to him: "Coacoochee, I take you by the hand as a warrior, a brave man. You have fought long, and with a true and strong heart, for your country. I take your hand with feelings of pride. You love your country as we do. Coacoochee, I am your friend; so is your Great Father at Washington. What I say to you is true. My tongue is not forked like a snake's. My word is for the happiness of the red man. You are a great warrior. The Indians throughout the country look to you as a leader; by your counsels they have been governed. This war has lasted five years. Much blood has been shed—much innocent blood. You have made your hands and the ground red with the blood of women and children. This war must now end. You are the man to do it; you must and shall accomplish it. I sent for you, that, through the exertions of yourself and your men, you might induce your entire band to emigrate. I wish you to state how many days it will require to effect an interview with the Indians in the woods. You can select three or five of these men to carry your talk. Name the time—it shall be granted; but I tell you, as I wish your relatives and friends told, that, unless they fulfill your demands, yourself and these warriors now seated before us shall be hung to the yards of this vessel when the sun sets on the day appointed, with the irons upon your hands and feet! I tell you this, that we may well understand each other. I do not wish to frighten you, you are too brave a man for that; but I say what I mean, and I will do it. It is for the benefit of the white and the red man. *The war must end, and you must end it!*"

The wily chief made a diplomatic reply, and evidently counted on making his escape. Concluding, he said: "I wish now to have my band around me and go to Arkansas. You say I *must* end the war! Look at these irons! Can I go to my warriors? Coacoochee chained! No; do not ask me to see them. I never wish to tread upon my land unless I am free. If I can go to them *unchained*, they will follow me in; but I fear they will not obey me when I talk to them in irons. They will say my heart is weak, I am afraid. Could I go free, they will surrender and emigrate."

General Worth knew his man. He told him that *he* could not go free, and reminded him that he had not proposed anything of the kind. He closed by saying: "I say to you again, and for the last time, that unless the band acquiesce promptly in your wishes, to your last wish, the sun, as it goes down on the last day appointed for their appearance, will shine upon the bodies of each of you hanging in the wind."

Coacoochee understood aright this time. He accepted the inevitable. He selected five of his men to carry his *talk* to his band in the swamps. The five went accordingly, and they returned with the entire band of about two hundred Coacoochean Seminoles. They all went West.

This policy of General Worth's availed something. But it was arrested midway by another *treaty*, by the provisions of which nearly three hundred savages are yet allowed to linger in Florida—almost powerless for serious ill, but a nuisance and annoyance, without any compensating advantage.

The heroes, so called, of this mongrel race, counting back a hundred years or so, are many—Secoffee, Pascoffer, Osceola (As-se-se-ha-ho-lar, Black Drink), Jumper, Micco, Sam Jones, Micanopy, Alligator, Black Dirt, Arpeika, Chitto-Tustenuggee, Coacoochee or Wild Cat, Emathla, Otulkee, Halleck-Tustenuggee, Aleck Hajo, Tiger-Tail, Tallahassee, Billy Bowlegs, Hospetarkee, and so on to a hundred, each and all distinguished for something. One is crafty and silent; another, bold and talkative; another, vigilant and far-seeing; another, ambitious and boastful; another, skillful and busy;

another, vulpine; another, feline; another, snaky; and another, tigery—but all blood-hungry and revengeful.

These Seminole wars have cost perhaps twenty million dollars, and over thirty thousand soldiers have seen service in them, of whom about fifteen hundred lost their lives.

In November, 1843, General Worth estimated the whole number of Indians in Florida as follows: of warriors, Seminoles, forty-two; Miccosukies, thirty-three: Creeks, ten; and Tallahassees, ten; making ninety-four warriors; and, including women and children, three hundred in all. These were under Holatter Micco as head-chief, and Assinwar and Otulko-Thlocko as sub-chiefs. In 1845 Captain Sprague estimated the aggregate at three hundred and sixty. To-day, they are reckoned to be two hundred and sixty-nine—statement given elsewhere—so that the race is not self-sustaining.

State of Florida.—Florida was organized as a State and admitted into the Union in 1845.

The State Governors prior to the war of secession were: W. D. Moseley, 1846; Thomas Brown, 1848; James E. Broome, 1852; Madison Perry, 1856; John Milton, 1860.

Secession.—An ordinance of secession from the Federal Union was passed by a State Convention on the 10th of January, 1861; and the State joined the Confederate States in the struggle for State sovereignty in the war of secession, bearing its part bravely and well.

At the close of the war a State Convention repealed the ordinance of secession.

In 1865 there were three Governors—A. K. Allison, acting Governor; William Marvin, military Governor; and David S. Walker, elected by the people, served until 1868, when reconstruction, so called, was regularly ushered in.

Reconstruction. — Under a new Constitution, adopted in 1868, a new line of Governors was inaugurated. Beginning with that date, the following have been the Governors, with their dates: Harrison Reed, 1868; O. B. Hart, 1873; M. L. Stearns, 1873; George F. Drew, 1877; William D. Bloxham, 1881; Edward A. Perry, 1885.

Restoration.—The election of Governor Drew in 1877 marks the new era of prosperity in Florida. From 1868 to 1877 the reconstruction *régime* obtained. During that period party politics seemed to be the main pursuit of those having the State in charge; and other industries were dwarfed by misdirected legislation or overborne by onerous taxation. The upward and forward impulse given all industrial pursuits by the election of Governor Drew, in 1877, was well sustained and increased successively by Governors Bloxham and Perry. The extent of the rebound from the reconstructional depression, or rather prostration, is clearly shown by Governor Perry in a communication of the 30th of March, 1888. He says: "I am glad to be able to say for my State that its agricultural interests are marvelously improving, that the number and amount of farm mortgages and liens on crops are decreasing, and that farmers are more prosperous generally. Their lands are yearly increasing in value, and their general advancement is marked." The assessments for taxation for the years 1870, 1879, and 1887 bear ample testimony to the material advancement of the State during the period in question:

For 1870	$29,700,022
For 1879	32,794,383
For 1887	86,265,662

II.

GEOGRAPHY.

FLORIDA is the largest in area of the States east of the Mississippi River, and it has an area of cultivable land greater than that of the six New England States.

The political, judicial, and congressional divisions of Florida are not matters of special interest to the traveling public; and, in view of the State as a place to visit or to settle in, they are not important. In a general way, again, the State is divided into West, Middle, East, and South; but this division is both vague and arbitrary, and comparatively meaningless. To the Northern as to the European reader's mind the State is pretty much a unit; and from this misconception has arisen much of the confusion of thought, conflicting opinions, the seesaw of vilification and overpraise, and the general wholesale *inaccuracy*, that has been so lavishly written about Florida for the last twenty years.

For the purposes of these pages—to give a correct idea of the country in its salient and diverse features, and to picture it as it is to-day—the sections of the State are three, which for convenience may be called Northern Florida, Semi-tropical Florida, and Subtropical Florida. The basis of this division is climate; and the three Floridas will be discussed as separate in future pages.

The physical features of this State, like its eventful early history and its manifold industries, are varied and diverse. The highest point in the State is Table Mountain, in Lake County; and though the barometric measurements have not been very close, a presumption is established that the summit is nearly five hundred feet above the sea-level. Louisiana is the only State with a less elevation. The highest point in the United States is Mount Whitney in California, 14,898 feet.

Florida is a land of water. In addition to its 1,148 miles of salt-water coast, it has, scattered all over its surface, certainly 1,200 fresh-water lakes. These vary in size, from Okeechobee (the word is said to mean Big Water), with its thousand square miles of area, to the picturesque little lakelet—for there are lakelets both large and small—with less than a hundred square feet. These lakes and lakelets are nowhere stagnant and unseemly with scum;

but are of waters fresh, clear, bright, smiling, and wholesome, often good enough for general use, and even for drinking. Even the Everglade waters are pure and drinkable. This clearness and health-quality appear as well in the chalybeate and the sulphur springs that are found in many parts of the State. The word "spring," in this connection, has great latitude of meaning; and some of the so-called *springs* are very large, as Silver Spring, in Marion County, two hundred yards in diameter, whose brook is a thoroughfare for a line of steamers, and the Blue Springs in Volusia County, with a basin seventy feet in diameter and forty feet deep. Of this latter a State official gives the following description: A huge bowl, from the center of which a column of blue-tinted water presses upward with such force that the center of the surface is convex to the extent of perhaps ten inches, and it is impossible to put or keep a boat on this summit, such is the force of the hydraulic pressure upward and laterally. The stream which this gigantic spring feeds is about fifty feet wide and of an average depth of ten feet, with a current of about five miles an hour. The Indian name of the St. John's River is *Wee-la-ka*, meaning a chain of lakes. The following are a few of the largest lakes: Okeechobee, Kissimmee, Tohopokaliga, Istokroga, Monroe, Apopka, Eustis, George, Crescent, Orange, Miccasukee, Iamonia, De Funiak, Santa Fe, and Buffum. The heights of these lakes vary a good deal, Buffum, in Polk County, being 138·26 feet above sea-level; Kissimmee, 59·06 feet; and Okechobee, 20·24 feet.

About Okeechobee, and mainly southward of it, extend the Everglades, in the counties of Dade, Monroe, and Lee, with an aggregate area of fully seven thousand five hundred square miles—nearly as large as the Commonwealth of Massachusetts. The Everglade waters are, like all the waters of Florida, pure and clear, and vary in depth from a few inches to several feet, rarely more than ten. Tall grass, as high sometimes as eight or ten feet, is very common, with shrubs, vines, trees, moss, and all sorts of tangle and roots. Islands lie here and there, with trees and vines on them—cypress, pine, oaks, palmettoes, magnolias, and a score at least of other subtropical trees. Fish in infinite variety abound everywhere.

The immense extent of sea-shore, almost encircling the State, is dotted with islands—islands of all sizes, from Santa Rosa Island and Key Largo, thirty to fifty miles long, to a dot big enough only to sun a turtle. Beginning at the mouth of the St.

Mary's River, at Fernandina, with Amelia Island, twenty-two miles long, on which that city stands, we have an unbroken chain—Anastasia, opposite which St. Augustine stands; scores of islands and islets along Hillsborough, Halifax, and Indian Rivers; on down to the Florida Keys, numbering hundreds, of which Key Largo is the largest; on to Key West and the Dry Tortugas; thence northward up the Gulf coast, taking in the Ten Thousand Islands on the coast of Monroe; and so on by Charlotte Harbor, Tampa Bay, and Cedar Keys, to the island-dotted coast of Franklin County; and on to the largest of all, Santa Rosa Island; and finally on to Perdido Point.

The rivers of the State are numerous, frequently serpentine, sluggish, and shallow, but rarely if ever stagnant. The principal streams are the St. John's, Suwannee, Kissimmee, Caloosahatchee, Withlacoochee, Apalachicola, Ocklawaha, St Mary's, Wakulla, Chipola, Peace, Manatee, Alafia, Homosassa, St. Mark's, Miami, Ocklokonee, and Ocilla. There are nineteen rivers navigable by steamers, to the aggregate distance of over a thousand miles.

III.

CLIMATE.

The climate of Florida, considered as one, is exceptional. It is, in some important respects, the finest in the world. Dr. Baldwin, a prominent physician of Jacksonville, maintains that the State occupies a most favorable position in regard to climate; for the many modifying influences in operation have produced, he shows, "a climate that for equability has few if any equals and no superior."

Temperature.—As regards temperature, continued observations in various parts of the State show that it is not excessive in either direction during the entire year, the range between winter and summer temperature being only about 20°. The annual mean is 70°; that of spring, 71°; summer, 80°; autumn, 71°; and winter, 60°. The following is the Weather Bureau's official statement of the temperature at Jacksonville, for the year 1887:

Annual mean	68·1
Maximum	100·3
Minimum	21·9

This may be accepted as applicable for the northern part of semi-tropical Florida, and approximately for the whole orange belt.

The following table presents results given by the Signal Service. The figures for Florida are presumably those for Jacksonville, for there are parts of the State where 105° has not been felt for a hundred years. The figures are degrees Fahrenheit, and the table shows the one point of comparative equability:

PLACE.	Maximum.	Minimum.	Difference.
Florida	105	10	95
Louisiana	105	0	105
Mississippi	105	—05	110
Alabama	105	—10	115
West Virginia	100	—20	120
Georgia	105	—20	125
Ohio	105	—25	130
Kansas	110	—20	130
Connecticut	105	—30	135
Oregon	110	—25	135
Illinois	105	—35	140
Nebraska	110	—30	140
New York	105	—35	140
Idaho	115	—30	145
Colorado	110	—45	155
Dakota	110	—45	155
California	115	—45	160
Montana	115	—50	165

As the public mind naturally expects, and as the California press have demanded, a comparison of the two States in the matter of temperature, the following figures are given from the monthly weather review of the Signal-Service Bureau, for August, 1885:

In Florida.	Deg.	*In California.*	Deg.
Limona	98	Fall Brook	115
Jacksonville	94	College City	114
Sanford	94	Murietta	111
Key West	94	Red Bluff	108
Merritt's Island	94	Los Angeles	106
St. Augustine	93	Sacramento	105

For September, 1885, the figures from the same review are these:

In Florida.	Deg.	*In California.*	Deg.
Limona	97	Fall Brook	110
Key West	92	Los Angeles	109
Merritt's Island	89	Murietta	107
St. Augustine	89	Poway	103
Jacksonville	89		

These two tables answer the question whether California is warmer in midsummer than Florida.

Humidity.—As to the humidity about which so much extravagant nonsence has been written, and which hasty writers have pronounced excessive and therefore objectionable, Dr. Baldwin insists, and with conclusive reasons, that it is one of the fortunate and favorable features, when considered in the light of science. "Let it be remembered," he writes, "that the term relative humidity as used by meteorologists is not the same as absolute humidity"; and then proceeds to show how this is true, in the following way: Absolute humidity determines the exact amount of vapor in the air when condensed into water; while relative humidity has relation to the amount of vapor in the air when it will be condensed after the point of saturation is reached, and this point of saturation depends on the temperature and tension or force of vapor determined by the barometric pressure at the time of taking the observation. In relative humidity, the point of saturation is marked 100, and the figures in the column below 100 are the percentage of that quantity as existing at the time under a specific degree of temperature and tension of vapor. Therefore, the point of saturation is variable; as, for instance, when the thermometer is 50° and the barometer marks 30 inches pressure, a cubic foot of air then contains four grains and a fraction of water at the point of saturation, 100. When the temperature is 75° and the barometer the same as before, a cubic foot of the atmosphere then contains nine grains and a fraction where the air is saturated, but still marked 100. At the temperature of 100°, pressure as before, the cubic foot of air at the point of saturation will contain twenty grains and a fraction. Thus we see that the amount of moisture in the air at different temperatures varies in quantity. Therefore, the percentages given of 100 and the different temperatures must also vary, so that the same figures, although they may be correct percentages of 100, do not indicate to us the absolute amount of moisture in the atmosphere, unless we know the temperature which regulates each point of saturation. Time and space will not permit a more extended exposition of this interesting subject. Professor Henry, of the Smithsonian Institution, in an article on meteorology, says: "It is not upon the actual amount of vapor which the air contains at a given time or place that its humidity depends; but upon its greater or less degree of saturation. That air is said to be dry in which evaporation takes place rapidly from a surface of water or moistened substance. Hence, if relative humidity shows a small percentage of 100, the point of saturation in a climate where the absolute moisture is great, its effect in producing evaporation is the same as where the absolute humidity is less at the same percentage of 100, indicating saturation there."

Accordingly, so far as Florida is concerned, it, with its so-called excessive humidity, is in that respect not less favorably conditioned than those places which boast of their dry climates, because their absolute humidity is less, and therefore more conducive to health. But the absolute humidity of this climate is productive of benefit in modifying its temperature. Vapor in the atmosphere regulates radiation of heat from the earth into the voids of space, thus preventing refrigeration and sudden changes of temperature, so inimical to the comfort of mankind, and so destructive to vegetation and the ripening of fruits.

Professor Tyndall says: "The observations of the meteorologists furnish important, though hitherto unconscious, evidence of the influence of vapor on the atmosphere. Whenever the air is dry, we are liable to extremes of temperature. By day in such places, the sun's heat reaches the earth unimpeded, and renders the maximum high; by night, on the other hand, the earth's heat escapes unimpeded into space, and renders the minimum low. Hence, the difference between the maximum and the minimum is greater where the air is driest. Wherever drought reigns, we have the heat of the day forcibly contrasted with the chill of the night. In the Sahara itself, when the sun's rays cease to impinge on the burning sands, the temperature runs rapidly down to freezing, because there is no vapor overhead to check the calorific drain."

Professor Tyndall states the phenomena in question with further illustration, but the above is enough for this purpose. Dr. Baldwin calls attention to the fact that the cool nights of the summers in Florida, so highly appreciated by all that have experienced them, attest the fact that the (so-called excessive) moisture in the air does not prevent radiation. And again, during many winters when excessive cold has characterized the weather of the North, and the cold polar waves have been precipitated upon these latitudes, the moisture-bearing breezes from the south meet them, and the moisture overhead is condensed into clouds that prevent severe radiation and protect them and their orange-groves from the intense cold that otherwise they should experience. But if, as has recently been their sad experience, those intensely cold winds, reduced to a temperature below zero, be driven as northers down upon Texas and the Gulf and there reflected across to this State, the passage of them across the warm waters of the Gulf, although modifying their temperature, will still leave them cold enough to be destructive in their effects. But these pre-refrigerated storms of a foreign origin are rare visitors to this clime, and do not count as indigenous elements to this enjoyable climate.

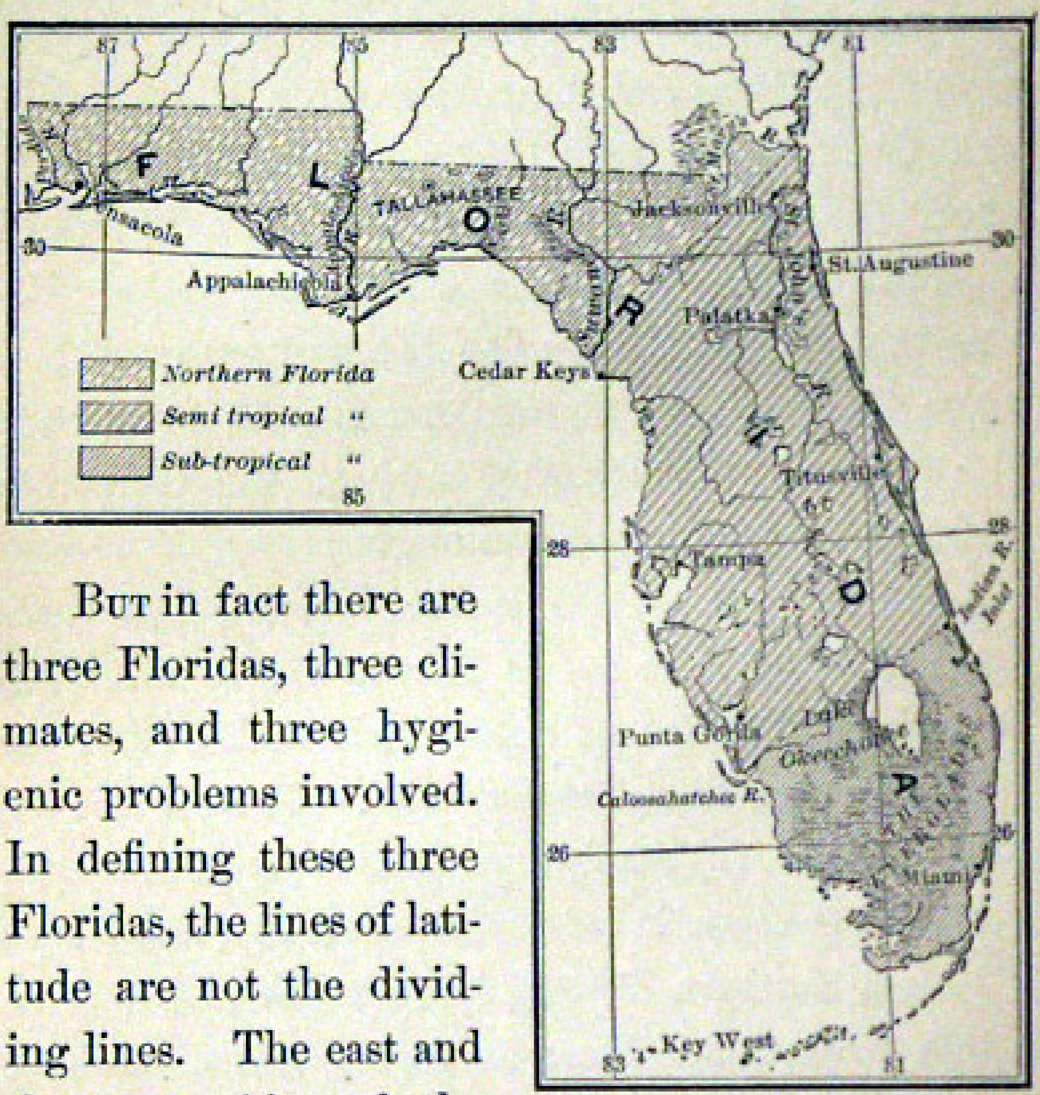
To put this matter of relative humidity in yet another light, the following table, taken by Dr. C. J. Kenworthy from official Signal Service sources, compares Florida with several other States, and with two Mediterranean watering-places:

Mean Relative Humidity.

	Years.	November.	December.	January.	February.	March.	Mean for five m'nths.
		Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.
Mentone & Cannes	3	71·8	74·2	72·0	70·7	73·3	72·4
Nassau, N. P. . . .	1	76·1	72·0	77·0	72·5	68·4	73·2
Atlantic City, N.J.	5	76·9	79·1	80·6	77·3	76·8	78·1
Breck'nridge, Minn	5	76·9	83·2	76·8	81·8	79·5	79·6
Duluth, Minn. . . .	5	74·0	72·1	72·7	73·3	71·0	72·6
St. Paul, Minn. . .	5	70·3	73·5	75·2	70·7	67·1	71·3
Punta Rassa, Fla.	5	72·7	73·2	74·2	73·7	69·9	72·7
Key West, Fla. . .	5	77·1	78·7	78·9	77·2	72·2	76·8
Jacksonville, Fla.	5	71·9	69·3	70·2	68·5	63·9	68·8
Augusta, Ga.	5	71·8	72·6	73·0	64·7	62·8	68·9
Bismarck, Dak. . .	1	76·6	76·4	77·4	81·6	70·6	76·5
Boston, Mass. . . .	1	68·0	61·8	60·6	68·2	63·7	65·6

IV.

DIVISIONS.


FLORIDA
TALLAHASSEE
Pensacola
Appalachicola
Jacksonville
St. Augustine
Palatka
Cedar Keys
Titusville
Tampa
Punta Gorda
Lake Okeechobee
Caloosahatchee R.
Miami
Key West
Indian R. Inlet
Northern Florida
Semi tropical "
Sub-tropical "
87
85
83
81
30
28
26

But in fact there are three Floridas, three climates, and three hygienic problems involved. In defining these three Floridas, the lines of latitude are not the dividing lines. The east and the west sides of the peninsula differ in temperature more than a degree, the east or Atlantic side being to that extent warmer in winter. Professor A. H. Curtiss, while engaged in a botanical exploration of the State several years ago, was the first to call attention to this interesting and important fact. He found that in its flora Cedar Keys on the west corresponded with Fernandina on the east; and in the same way corresponded Tampa with Daytona, Charlotte Harbor with Cape Canaveral, Cape Romano with St. Lucie, and Chukaluskee with Lake Worth. Lines connecting these places respectively, may be called *isofloral* lines. Professor Curtiss concluded further that "Cape Romano on the western coast and Cape Canaveral on the eastern may be considered the points of demarkation between the temperate and the subtropical vegetation."

In the light of these and other similar facts since developed, it seems fair to divide the State into three Floridas, as above intimated, basing the division upon climatic conditions. These three are (1) Northern, (2) Semi-tropical, and (3) Subtropical.

Taking these in this order, severally, there are:

First, Northern Florida, lying north and west of a line from Cedar Keys to Fernandina, or perhaps better the tortuous line of the Suwannee, Santa Fé, and St. Mary's rivers—a region whose climate may be designated as *southern*.

Second, Semi-tropical Florida, lying south of the above-designated line and extending to a line from the mouth of the Caloosahatchee River to Indian River Inlet—a region whose climate is *semi-tropical*, and which may be appropriately designated as the *Orange Belt;* and,

Third, Subtropical Florida, or all the region lying south of the semi-tropical orange belt above defined, embracing the Florida Keys.

These three Floridas are distinct in general features, climates, and productions; but the dividing lines are in no sense sharp. These Floridas run into one another, and varying seasons press their lines northward or southward, and many conspicuous floral features extend over all. But the general demarkation is distinct, well defined, and easily noted.

In climate the three are distinctly dissimilar. In Northern Florida the extremes—approximately stated, for illustration—are, maximum, 105°, minimum, 20°; in Semi-tropical Florida, 100° and 25°; and in Subtropical Florida, 95° and 30°. This increase of equability or decrease of range as we go south is at one with the scale covering greater distances; as, New York, Virginia, Florida—the extremes always coming nearer as we go south. This difference is the natural result of the decreased length of the midsummer day at points farther south.

The difference between Northern Florida and Semi-tropical Florida—apart from and in addition to the difference of latitude—is largely due to the greater elevation of the former, and the distance of the Gulf Stream from it. The waters of the Gulf of Mexico attemper the immediate coast-line in this region, but their effect does not extend far inland; and the obliquity of the dividing line is due mainly, if not wholly, to the warming influence of the Gulf Stream in the Atlantic.

The Gulf Stream is an immense factor in the climate of both the peninsular divisions. Coming directly from the Cuban waters northward through the Strait of Florida, pressed close to the shore along Dade County by the Bahama banks, it flows northward—this vast body of deep-blue water, a thousand times the volume of the Mississippi River, thirty miles wide, and two thousand feet deep, with a velocity of fully five miles an hour—the year round. The temperature of this enormous ocean-river is about 84° all the time, and thus creates a constant stratum of warm air that floats over the land. The temperature of the Gulf Stream is fully nine degrees above that of the ocean-waters through which it flows, and it loses but one degree every five degrees of latitude. Sir Philip Brooke reported the temperature of the stream as 80° at the point where the ocean-water was 32°. The stratum of warm air is borne westward across the land by the trade-winds which blow constantly from the eastward—at least nine tenths of the time—summer and winter. The stream flows directly along the Florida coast from the point of contact—about 25° 20′—to Jupiter Inlet, 27°, at which point it leaves the land, getting gradually farther out to sea. Of course, its influence on the climate of Florida gradually decreases as it passes northward, but never ceases entirely. From the Indian River Inlet—the southern boundary of Semi-tropical Florida—northward to Fernandina, the whole coast is made both milder and greatly more equable than the Gulf coast in the same degree of latitude; and this, as elsewhere stated, to the extent of more than one degree. And purity accompanies equability on the wings of these eastern winds. They strike the land of Florida fresh from the Atlantic, absolutely pure, and sweep across the peninsula, bearing with them whatever of malaria escapes dilution, absorption, and dissipation, thus putting the Gulf coast to a disadvantage so far as these influences extend. How far they extend has not been determined, but certainly not very far. Long moss is much scarcer along the Atlantic coast than in most other places in Florida.

Thus it will be seen, and why, Semi-tropical Florida enjoys an equability decidedly greater than does Northern Florida. This climate is that of Northern Florida with its extremes softened a little. This is the part of the State best known at the North. The St. John's River region has been so fully and so frequently written up and written down that readers can not need, here and now, to hear more of this beautiful orange belt. The popular mistake is to confound this favored region with the two other Floridas—the Northern and the Subtropical—while the difference is considerable.

But the phenomenal effects of the Gulf Stream and the trade-winds are to be found on the Atlantic coast south of Indian River Inlet; and especially south of Jupiter Inlet, where the shore trends westward and the Gulf Stream bears rather eastward, making for a passage around Hatteras. It is this separation of the Gulf Stream and the shore that really marks the northern boundary of the subtropics. In this eastern side of Subtropical Florida are found the four equalizing agencies at their greatest; to wit, the Gulf Stream, the trade-winds, the Everglades, with water-surface preventing the land-breeze and its corresponding sea-breeze, and the zone of high barometric pressure. These agencies conspire to increase the mere latitudinal difference between Semi-tropical and Subtropical Florida. Here the midsummer heat that might otherwise be 95°, say, is reduced to something like 88°; and the midwinter chill that might otherwise be, say, 30°, is warmed up to something like 40°. The trade-winds, in bringing to the Subtropics the breath of the Gulf Stream, hurry off all incipient malaria into the Everglades, and thus keep pure the air of that eastern coast. The absence of Spanish moss from this region proves the purity of its atmosphere; for, as a rule, in this latitude, if moss does not mean malaria, it at least raises an uncomfortable doubt in the premises. Here, also, as nowhere else on the earth except in the Island of Formosa, are to be found the most marked results of these exceptional climatic agencies—an equability greater than is to be found anywhere else in either of the grand divisions of the American continent. As Florida considered as a unit is more equable, temperate, and healthy than any other

State in the Union, so Subtropical Florida stands, at least in equability, in favorable contrast with the northern divisions of the State.

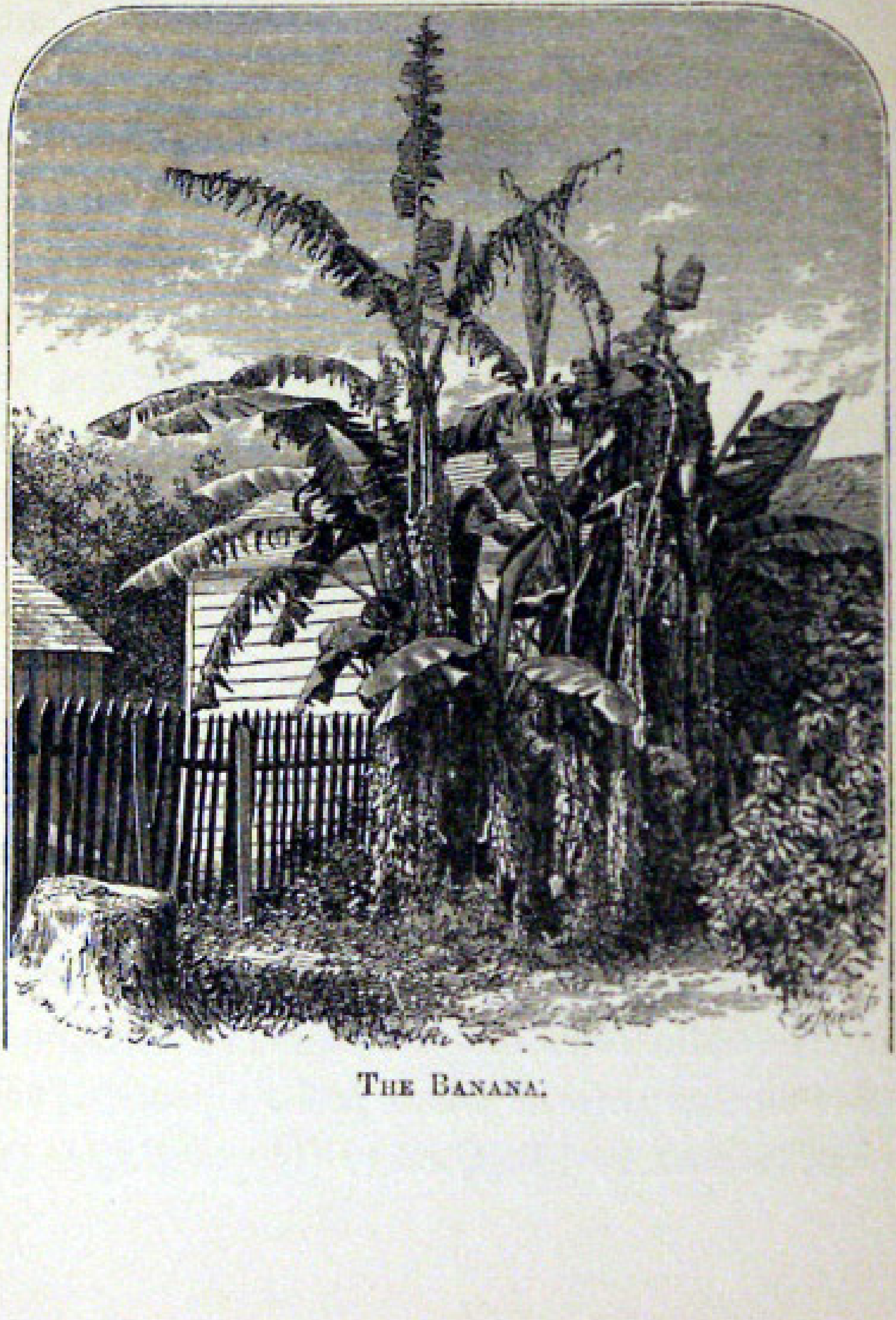
In summary, then:

The climate of Northern Florida, while its range of temperature is the greatest of the three Floridas, is still more equable than are the Southern States generally. Its greater range has its special charm to many, and its enjoyableness depends upon individual tastes. For those coming to Florida from higher latitudes, it is naturally the most attractive part of the State. The frosts are always light, but they mark definitely the seasons and destroy the insects, clearing the way for a new spring. Ice is formed every winter, and snow has fallen but once in forty years, and then barely an inch deep. This one snow extended over a considerable portion of the orange belt. This is the land of the Le Conte pear, as Semi-tropical Florida is the land of the orange, and the subtropics are of the pineapple. The semi-tropical fruits, almost all, including the typical orange, can be grown here in Northern Florida, and especially near the southern line; but they do not attain the degree of excellence here that they do in their habitat, either in size or in quality. The influence of the Mexican Gulf water is consid erable on the southern border, but, as the Gulf Stream does not reach those waters, the influence is merely that of an ocean-frontage. There are, however, the daily alternating land and sea breezes which render grateful effects. North of the range and reach of these breezes, the different elevations of land, with lakes, rivers, and springs, give pleasing variety in warm weather, and produce a most attractive Southern climate; a climate vastly superior to most of the written-up and classic resorts of the Old World. Messrs. Reasoner, perhaps the best-informed nurserymen in Florida, publish a very carefully prepared and scientific catalogue of fruits for this State. They give, as suiting farther north than the semi-tropical fruits, the following among many: Pears of several kinds, including the Le Conte and the Keiffer, pecan, Japan plum, and grapes. These all have Northern Florida as their habitat.

The climate of Semi-tropical Florida, or the orange belt, is that of Northern Florida, modified by more water frontage, by the partial influence of the Gulf Stream, especially on the eastern side, and by the slight difference in latitude. The highest point in the State is well south in this division, and the number and variety of lakes in this mid-Florida lake region—there are three or four lake regions in the State—tend to make this one of great variety and numberless attractions. All these and many other delectable features have been given to the public again and again. This region is the *Florida* of the legions of writers that in the last twenty years have lavished their praises and their abuse for the entertainment or the information of the Northern public. The fruits of the subtropics will many of them grow and mature here; but the trees of such are smaller and the fruit inferior. The Reasoner Brothers, of Manatee, in their list of trees called semi-tropical have these: The whole citrus family—orange, lemon, shaddock, grape-fruit, and lime—fig, Cattley guava, pomegranate, and jujube.

The climate of Subtropical Florida is that of Semi-tropical Florida, modified by a still greater proportion of water-frontage, by the full influence of the Gulf Stream, and by the slight difference in latitude. It is the most equable in the State. The authorities named above mention these tropical fruits as suitable for Florida, and it is perfectly fair to assume that they can not grow to anything like perfection anywhere north of the subtropics, and some of them even there are a little too far north:

The anonas, such as the cherimoya, guanabena (sour-sop), custard-apple, sugar-apple, the pineapple, sapodilla, cocoanut, mangosteen, mammee, mammee sapota, Spanish lime, mango, aguacate or alligator pear, guava, ti-es, tamarind, and almond.



THE BANANA.

V.

HEALTH.

General health depends largely—indeed, almost wholly—upon climate. Almost all the writing about Florida health—and of the popular kind it has been voluminous—has been about that part of the State elsewhere in these pages defined as Semi-tropical Florida; and a patient public that has read Dr. Kenworthy on the "Climatology of Florida," Dr. Logan on "Climate-Cure," Dr. Blodget on "Climatology," and the more or less able papers of Drs. Baldwin, Lawson, Denison, Lente, Lee, Johnson, Jacques, Wilson, and the rest, can hardly care to have the matter treated here with any fullness. A brief summary will suffice.

Malaria.—A good deal has been written and said about the picturesque long or Spanish moss as an indicator of malaria. It doubtless indicates the presence of certain elements—moisture and heat, say—that are often present where malaria prevails; and it must be confessed that, other things being equal, the probabilities of perfect healthfulness are rather against the places wherein this banner of the marshes abounds. But there are many places in Florida entirely free from this moss, notably along the Atlantic coast quite near the ocean, as between 26° and 27°; and there are many places where the moss abounds that are free from the effects of malaria.

Malaria seems to be the great bugbear of the partly-informed. The character and quality of malaria can both be ascertained, approximately at least, by finding the nature and prevalence of the diseases caused by it. These diseases are well known. Even in these, Florida stands better than any of the other States—better as to frequency of malarial fevers, and vastly better as to the severity of such cases. The fevers that are reckoned as arising from this cause are always milder, and yield more readily to treatment, than in most other places where they are found, and are almost never fatal or even very severe.

A drainage company has been operating with thirty to forty hands, all white, since 1881, in the heart of the Everglades, where malaria is imagined to abound; and James M. Kreamer, the chief engineer and general superintendent, in 1885, after four years of work there, in his official report, says: "One of the best attested records as to the continued healthfulness of this portion of the State is shown by the reports respecting the condition of the force employed by the Okeechobee Drainage Company, which has been operating on the line of the rich bottom-lands since the year 1881. Our employés come from almost every State in the Union and foreign countries. During this interval [till 1885], and after a continuous service, without intermission, during the summer months, there has never been a death from any cause whatever; and a physician in a professional capacity has never visited our work. The health of our men, not only, but of the residents throughout this district, is unimpaired at this time."

Surgeon-General Lawson, U. S. A., some years ago, in his official report, after making a detailed mention of the comparative health-merits of various places occupied by the army, gives this pointed summary:

"As respects health the climate of Florida stands pre-eminent. That the peninsular climate of Florida is much more salubrious than that of any other State in the Union is clearly established by the medical statistics of the army. Indeed, the statistics of this bureau demonstrate the fact that diseases that result from malaria are of much milder type in the Peninsula of Florida than in any other State in the Union. These records show that the ratio of deaths to the number of cases of remitting fever has been much less than among the troops serving in any other portion of the United States. In the Middle Division of the United States the proportion is one death to thirty-six cases of remitting fever; in the Northern Division, one to fifty-two; in the Southern Division, one to fifty-four; in Texas, one to seventy-eight; in California, one to one hundred and twenty-two; in New Mexico, one to one hundred and forty-eight; while in Florida it is but *one to two hundred and eighty-seven.* In short, it may be asserted, without fear of refutation, that Florida possesses a much more agreeable and salubrious climate than any other State or Territory in the United States."

The sanitary qualities of the Florida climate are important. The best informed medical advisers send at least two classes of patients to this State—consumptives, or those suffering from some disease of the respiratory organs, and those broken in health without any well-defined special form of disease.

Upon the former class of these—consumptives—the United States census reports give the facts embodied in the following table:

Deaths from Consumption in 1,000 Deaths from all Causes.

Maine	258
New Hampshire	222
Vermont	202
Rhode Island	201
Massachusetts	199
Delaware	190
Connecticut	179
Ohio	177
West Virginia	174
Kentucky	174
Maryland	172
New Jersey	171
Michigan	169
New York	168
Tennessee	166
Indiana	164
Pennsylvania	142
California	138
Virginia	138
Iowa	137
Minnesota	133
Wisconsin	131
North Carolina	117
Illinois	108
Louisiana	97
Missouri	97
Kansas	90
South Carolina	90
Mississippi	76
Alabama	71
Arkansas	70
Georgia	68
Texas	63
Florida	58

This table is better than a volume of arguments and laudatory generalities, especially when considered in view of the patent fact that something like fifty per cent of the deaths from consumption in Florida are imported cases—cases sent thither, too often, when the patients were so far gone as to be beyond the hope of recovery. It is safe to add that cases of this class originating here are almost invariably inherited.

Upon the other class of cases benefited by Florida's sanatory climate—broken health, or brain-fag—a few words from Dr. Kenworthy, a man thoroughly acquainted with Florida's sanitary and sanatory features, may suffice: "In this active business country we find many persons who have been overworked and present a breach in the chain of those vital processes whose continuity constitutes health—a condition popularly known as 'broken health.' In Florida, the worn-out man of business, suffering from 'broken health,' will find the necessary relaxation from 'brain-fag,' opportunities to take outdoor exercise, plenty of sunshine, pure and bracing air, and other necessary adjuncts to relieve a condition affecting the many. In this connection I can not refrain from referring to what I consider an important fact. From my observations in the United States and in foreign lands, and in hospital as well as in private practice, I have been forced to notice the infrequency of chronic disease and broken health in Florida. In my visits to various portions of this State I have met with many persons, old and young, who live from year to year on improper food, and who drink water from shallow holes, near marshes, and yet, singular to say (although such persons are somewhat anæmic), they do not present any manifest diseased condition. In cities, towns, villages, and rural districts, where residents are supplied with proper food and drink pure water, a case of chronic disease or broken health is seldom met with. And if we have a climate in which these conditions rarely occur, are we not justified in concluding that it will exert a powerful influence in restoring the invalid to health? As most of you are aware, I have at various times visited many portions of the State, and have been surprised to meet so many persons who have settled in it as invalids, and have been restored to health or comparative comfort by the climate—a large proportion of them having been sufferers from pulmonary diseases."

Tornadoes.—In the light of meteorological observation during the past decade or two, it is perfectly safe to assume that Florida as a whole is as safely out of the line and sweep of tornadoes and hurricanes as any State in the Union, and rather more so than some of the Northwestern States and Territories.

So much for the climate of Florida *as a unit.*

VI.

GEOLOGY.

The geology of Florida is full of interest, mainly prospective, although no general survey has yet been made. Dr. J. Kost, the first and present State Geologist, has issued one report of results, and the public await with profound interest the further prosecution of the work. A preliminary inspection is all that has been thus far accomplished, but that has afforded glimpses of rich treasures in the fields of both mineralogy and paleontology. Dr. Kost finds the geological formations of Florida to be "the equivalent of the Tertiaries of the Paris basin in France and the vale of the Thames in England." He reports fossil remains, not only of the mastodon, zeuglodon, and carcharodon, but also of the rhinoceros, hippopotamus, llama, peccary, leopard, tiger, hyena, lion, camel, and elephant; and "a species of bimana." One of the three mastodon skeletons found is of exceptional size and will be set up for the State Museum; and it will be "the largest one of a mastodon on record; and, next to that of the whale, the largest known of any animal."

The mineralogical scope is also considerable. Dr. Kost finds lime, iron, and sulphur widely distributed; with silicon galore, and potassium, sodium, magnesium, aluminum, and phosphorus. Other authorities report lead. Agates of chalcedony and opal are reported as found near Tampa.

Nothing has been discovered, it appears, lower than the Tertiary period; but this is abundantly and fully represented in all its subdivisions. The Eocene is of considerable depth; the Miocene and the Pleiocene, less; while over nearly all lies a heavy spread of Pleistocene or Post-tertiary.

The doctors disagree sadly as to the formative agencies that made this peninsula and their processes. Some years ago, such men as Agassiz and Joseph Le Conte, after examining the Atlantic side, told us that this southward-pointing land was underbuilt by corals and upraised in successive tiers. Later, Heilprin explored the Gulf coast, and failed to find any confirmation of the coral-reef theory. He confidently asserts: "On the contrary, the existence of the heavy fossiliferous deposits about Tampa, on the Manatee, along the tributaries of the

Big and the Little Sarasota Bays, and more particularly those exposed on the Caloosahatchee, conclusively proves that a coral extension to the Southern United States, such as has been theoretically set forth, does not exist in fact." Of the coral, he maintains, the structure is limited and local. Dr. Kost thinks it almost absurd to venture upon any statements concerning the principles of the geological formation of the State. He adds, however, that when the Eocene rocks were in course of deposit, the Tertiary was reposing at the bottom of the sea, from one hundred to several hundred feet deep, and was, for a time at least, sinking slowly—that is, at a pace correspondent to the continuous building of coral reefs. This Eocene deposit, though new geologically, is in secular chronology very old, because it dates back to a time anterior to the upheaval of the lower half of the Rocky Mountains. In course of time, the bottom of the sea began to rise, at first slowly. During this period occurred the Oligocene deposits. Later, the dry land appeared, and the Miocene deposits were made; and, in the after-age, the land was submerged again, the submergence embracing not only Florida but also Alabama, Mississippi, and Louisiana, and parts of Tennessee, Arkansas, and Texas—the whole to emerge a second time, and to rise to its present level. The State Geologist finds, further, that "an extensive anticlinal, of an axis parallel with that of the peninsula, trends centrally through the peninsula." There are to-day indications, especially on the eastern side, of a rise of the land now in progress. Dr. J. Dabney Palmer finds the origin of this peninsula in the changes wrought by the "rise of the Appalachian Mountains," which diverted the Gulf Stream from its former channel up the Mississippi Valley. This caused an eddy south of the then land; and sand-bars resulted and sediment and coral insects followed. "And thus it has been going on for ages—sand-bar and deposit, and coral reef. And thus the building and extension of the peninsula continue to this day. The gradual upheaval of the land has lifted the northern and central portions of the peninsula far above the sea-level. This elevation will probably increase, and the Everglades become dry, even if not assisted by artificial means. The digging of wells, etc., has disclosed this great variety of formations throughout the State. It is not infrequent that as beautiful deposits of coral are disclosed high up in the peninsula and Northern Florida as are to be found on the reefs south of Cape Sable. Should these causes continue, the deep channel of the Gulf Stream may be closed, Cuba annexed by natural causes, the valley of the Mississippi be extended, and the Gulf of Mexico become a fertile plain." The indications, along both the Atlantic and the Gulf side, are confirmatory of the theory that the land is still rising slowly—more slowly, it is confidently believed, than the operations of the Atlantic Coast and Canal Company's dredging corps.

Industrial Features. — The industrial arts find some valuable mineral deposits among these *rock* materials. Dr. Kost states that several localities have been found to have large deposits of rich phosphates, deposits quite as rich in phosphoric acid as are the phosphate rocks on Cooper and Ashley Rivers in South Carolina, from which immense revenue has been derived. These Florida beds show phosphates of lime, of silica, of alumina, and of iron. They are indicated by phosphoric-acid-bearing rocks in the counties of Wakulla, Alachua, Marion, Hillsborough, and Manatee. In Wakulla the State Geologist finds a triple phosphate of lime, iron, and alumina, indicating exceedingly valuable beds, the samples analyzed showing in one instance 23·85 per cent in phosphoric acid, equivalent to 59·05 per cent bone phosphate of lime ($Ca_3P_2O_8$).

Shell marl of marine deposit is found in nearly all parts of the State, and inexhaustible fertilizing marl-beds underlie the soil almost everywhere.

Limestone is to be found in nearly all parts of the State; a large proportion of which, however, will not yield a first quality of lime. The rock is generally too silicious, and slacks poorly; yet Professor Pickel, of the State College, found by analysis 93·67 of carbonate of lime, being equivalent to 52·46 per cent of quicklime.

Clays exist, especially in Northern Florida, of which passably good bricks are made; but the presence of too much either of lime or of sand often prevents the best results in this direction. Clays sufficiently fine and pure for pottery are to be seen at various points, in lower strata, where coarser varieties occur.

Kaolin has been found in numerous localities; but thus far little is known of its quality or quantity.

Iron-ore is found in Northern Florida, and in Jackson County a "rather extensive deposit" is reported; but nobody seems to believe that it exists anywhere in paying quantities. The ore is of the limonite variety, and is not the best. It is to be found in all parts of the State. There are several chalybeate springs whose medicinal qualities have been tested. Dr. Kost thinks that a large proportion of the running water of wells and springs is of the chalybeate character; in springs and wells these are commonly called *sulphur-waters*, because of the presence of sulphureted hydrogen occasioned by chemical action. Nearly all the clays are stained by "oxides of iron."

Coal is present. Lignite has been unearthed in Northern Florida. Dr. Kost discovered, in Santa Rosa County, a vein about thirty inches thick. This Tertiary coal is similar to that found along the Northern Pacific Railroad and used on that road. An artesian well, sunk during the present year in Marion County, it is stated, passed through a vein of coal some fifteen to eighteen feet thick, at a depth of nearly six hundred feet.

Limestone, quarried for building purposes, exists in Northern Florida. It is, however, for the most part, soft, porous, and liable to imbibe moisture; but the Union Bank building at Marianna, in Jackson County, built of this material, has stood now some forty years, and is to-day in a good state of preservation. Chimneys are frequently built of it. It has been pretty extensively used in Hernando County for both building-walls and chimneys.

Flint-rock is available for rough walls, and will last till the end of time. This is found as far south as Sumter County, in Semi-tropical Florida. Arrow-heads, spear-points, and rude knives were made of this flint by the Indians or their predecessors. In Northern Florida it abounds along the line of the railroad in Suwannee and Alachua Counties. Dr. Kost says: "This rock was evidently deposited from solution by presence of lime and potash, with the silica in the waters of the later Tertiary, as the shell remains of the echinoidea, pecten, etc., appear with their own shell tissue, often in full integrity."

Sandstone occurs in many places. It is soft, its cementing principle being impaired "by diffusion of aluminous materials previously oxidized."

Marble, of stalactite and stalagmite varieties, is to be found in the caves of Jackson County and some other localities. Ceilings, floors, and walls of the caves are covered with this marble. It is in some instances.beautifully white and translucent.

Coquina—a shell limestone, as the name implies—exists in many places along the Atlantic coast. The texture of the rock, Dr. Kost writes, is very interesting, from the integrity of the *shell* material. It dresses moderately well, leaving a corrugated surface of rather agreeable aspect. It is very durable, as is proved by the integrity of the walls of St. Augustine, those of the old Spanish Fort San Marco, and of the old cathedral at the same place—some of these a matter of two centuries old.

Coralline is abundant, especially on the Atlantic coast south of the coquina region.

But concrete—of sand, shells, and lime or, better, cement—is more easily managed than either coquina or coralline, cheaper, and doubtless equally durable; so that its use is likely to supersede both the other hitherto favorite building materials. It has been used extensively in several places, notably at Cedar Keys; and, more recently, in a modified form in the erection of the palatial hotels at St. Augustine.

Mineral Waters.—The great variety and abundance of mineral deposits in Florida naturally give numerous mineral springs. The mineral waters are in the main solutions of lime, alumina, and iron; but magnesia, soda, sulphur, and potash occur frequently, and iodine and bromine somewhat rarely. Ponce de Leon's Fountain of Perpetual Youth has been discovered a score of times, pretty much all over the State, and the modern wonder is that that grandiose *Adelantado* himself could not find it, when it is so numerous to-day. Among the mineral springs conspicuous are the Newport Springs, on St. Mark's River, in Wakulla County; the Hampton Springs, of Taylor County; the White Sulphur Springs, of Hamilton County; the Suwannee Springs, of Suwannee County; and the Green Cove Springs, of Clay County.

Soils.—The soils are usually classed as first, second, and third rate pine or sand lands, high and low hammocks, and swamp lands.

Of the pine lands Dr. Kost says: "The sand deposits of Florida lands are very generally misjudged. They are generally estimated by the tourist by what he has been conversant with in deposits of 'sand-banks' in Northern localities, distant from the sea, which are generally wind-drifts or drifts from fresh-water bays or lakes, and the sand is quite liable to be clean and free from earthy or saline mixture. But here in Florida the accumulations are from salt-water bays or sea-coasts, and they are never free from marine salts, or more especially having the presence of the dust of marine shells, in the form of carbonate of lime from organic forms or shells of mollusca. Hence the sands of Florida are far more productive as compared to others than are those not of recent marine derivation. It happens, therefore, that tourists who have opportunity to inspect growing crops on the '*sandy barrens*' are not a little astonished to see respectably good crops grown on such lands. Similar sand deposits elsewhere—that is, in the adverse circumstances—commonly are found to be almost completely barren." Humus is the general need of the sand lands.

Hammocks may be defined as hard-wood lands, the high being either alluvial or clay, the low being of infinite variety both as to wetness and to material.

Swamps are either sand or low hammocks in process of formation.

Drainage.—Germane to the matter of soils is the reclaiming of lands. In Subtropical Florida especially there is much overflowed land, and a drainage company has undertaken to reclaim lands on shares around Okeechobee as a center. Here are, it is estimated, about eight million acres of water-covered land—Lake Okeechobee, of a thousand square miles, and the Everglades, more than ten times that area. The company began operations in 1881. In 1887 the Legislature sent a committee to examine and report results. They first visited Lake East Tohopekaliga, and their report states: "We find the lake eight feet two inches below its original level, with a handsome beach of firm white sand three or four hundred feet wide, hard and level, where formerly was seven or eight feet of water. We find the surrounding marshes and cypress swamps are dry and ready for the plow. . . . All these lands are in the highest state of cultivation, with handsome crops of sugar-cane, corn, potatoes, and various vegetables, all vigorous and thrifty. The lands are exceedingly fertile, and though but recently freed from two to four feet of standing water, are now dry and fit for all crops of a temperate or subtropical climate. . . . Sixty-five tons of cane, seventy bushels of corn, seventy bushels of rice, have been raised per acre on these lands."

All this is *en couleur de rose* certainly.

Toward the draining of Okeechobee directly the Drainage Company cut one canal forty-six feet wide and ten feet deep from the lake connecting it with the Caloosahatchee River, which flows into the Gulf of Mexico. The company seems to have published no report of recent results of this part of its work; but Mr. John B. Hickey, of Fort Myers, on the Caloosahatchee River, writes that Lake Okeechobee is now three feet below its normal level. The immediate friends of this enterprise appear very hopeful of early and complete success. Many others are less hopeful. As Okeechobee is 20·44 feet above sea-level, and as the Everglades-level at Lake Worth is sixteen feet above that lake, and as the Everglades-level at Miami is 5·5 feet above that of Biscayne Bay, it does not seem impossible that at least a great part of these Everglades waters may be drained off. It seems to be a question mainly of canal capacity.

Writers on hygiene maintain that the conditions above given—removal of water from extensive areas of rich alluvial lands and cultivation of the same—must evolve malaria. The healthfulness of this reclaimed region, however, is vouched for, at least for the first four years of the Drainage Company's operations—up to 1885—as appears in its report quoted elsewhere in these pages in treating of malaria. It kept nearly forty white men at work summer and winter for three or four years, and had not a single case of malarial fever. This report goes far to prove that malaria is not as prevalent as is popularly believed, at least in that Everglade-lake region. What future developments are to bring forth remains to be seen; and it is possible that these very operations may change things in that regard; but, to-day, assuredly there is no great reason to be alarmed about malaria. A very few more years of draining will settle that question.

VII.

TRAVEL.

TRAVEL to Florida is increasing from year to year. Health, pleasure, and profit are the three guiding stars. These motives extend and increase with the development of the country; and health, pleasure, and profit seekers rapidly become immigrants and home-seekers. Over sixty thousand tourists visited the State during the past season.

How to reach Florida is the tourist's first inquiry.

From New England, the adjacent States, and Canada, excursionists for Florida should make New York city their common point of departure. In that city all the great railway and steamship lines have offices, where full information may be got; and tickets bought not only for Fernandina or Jacksonville, but for numerous other points in interior Florida.

Ocean Routes.—Of the water ways, the Mallory Steamship Line is an excellently appointed one and very popular. Four first-class steamers ply between New York and Fernandina, Florida, leaving New York every Friday. These steamers are large, safe, and comfortable, built of iron, three thousand tons capacity each, with deep draught and full power.

Clyde's New York, Charleston, and Florida Steamship Line, New York, has also four first-class steamers, two going to Fernandina and two direct to Jacksonville; all of them generally stopping *en route* at Charleston. They leave New York on Tuesdays and Fridays.

The Ocean Steamship Company have a full outfit of steamers sailing regularly from Boston, New York, and Philadelphia, to Savannah, where they connect with the Savannah, Florida, and Western Railway—the Waycross Short Line, which leads to Jacksonville. These vessels are large, convenient, safe, and first class in every way. They sail from New York three times a week, and from Boston on Thursdays.

Overland Routes.—Railway travel facilities are exceptionally fine. The Atlantic Coast Line is the shortest one from the East and North to Florida. The line runs three express trains daily each way, the time between New York and Jacksonville being about thirty hours, and by express train less than twenty-four.

In addition to these rare facilities of speed and frequency, this line has during the present year taken some important steps in advance of ordinary travel. The recent vast increase of pleasure-travel has produced two coincident results—fine hotels in Florida and sumptuous means of travel to the State. The tide of fashionable touring and resort-seeking southward has set in within the past year or two; and the health and pleasure resorts have been made to meet the demands of that class. The summer resorts of Newport, Saratoga, Bar Harbor, Long Branch, and Cape May are beginning to reappear with at least some of their features and *habitués* at St. Augustine, Pablo Beach, Rock Ledge, Tampa, Tarpon Springs, and Key West, as winter resorts in Florida. In response to the increase of this class of travel of late, the Atlantic Coast Line has put on regularly running Pullman vestibuled trains between Boston and Jacksonville. These trains consist exclusively of drawing-room cars, containing each a library, reading-room, smoking-room, dining-cars, and sleeping-cars. The cars of these trains are so connected by means of vestibules that each train is practically one continuous car, with the conveniences of a well-ordered hotel. The trains throughout are lighted with electric lights depending from the ceilings. The traveler on these trains may breakfast in New York one day and dine in Jacksonville the next.

The Piedmont Air-Line has its advantages as an all-rail route between the North and the South. It runs double daily trains, with Pullman buffet and Mann boudoir cars, between Atlanta and Jacksonville, making regular and close connections at Atlanta with Northern trains. The route from the North lies through the great battle-fields of Virginia, the Shenandoah Valley, the beautiful broken rolling country of the Piedmont region, which presents some of the finest landscape scenery in America. This connects also with the East Tennessee, Virginia, and Georgia systems of railway.

Cincinnati is the starting-point from the Northwest region of St. Paul, Chicago, and Indianapolis; and from that point there run through sleeping-cars and double daily trains of the Cincinnati Southern Railway and of the East Tennessee, Virginia and Georgia Railroad, connecting with the Savannah, Florida and Western Railway to Florida, making the time between Cincinnati and Jacksonville only twenty-eight hours.

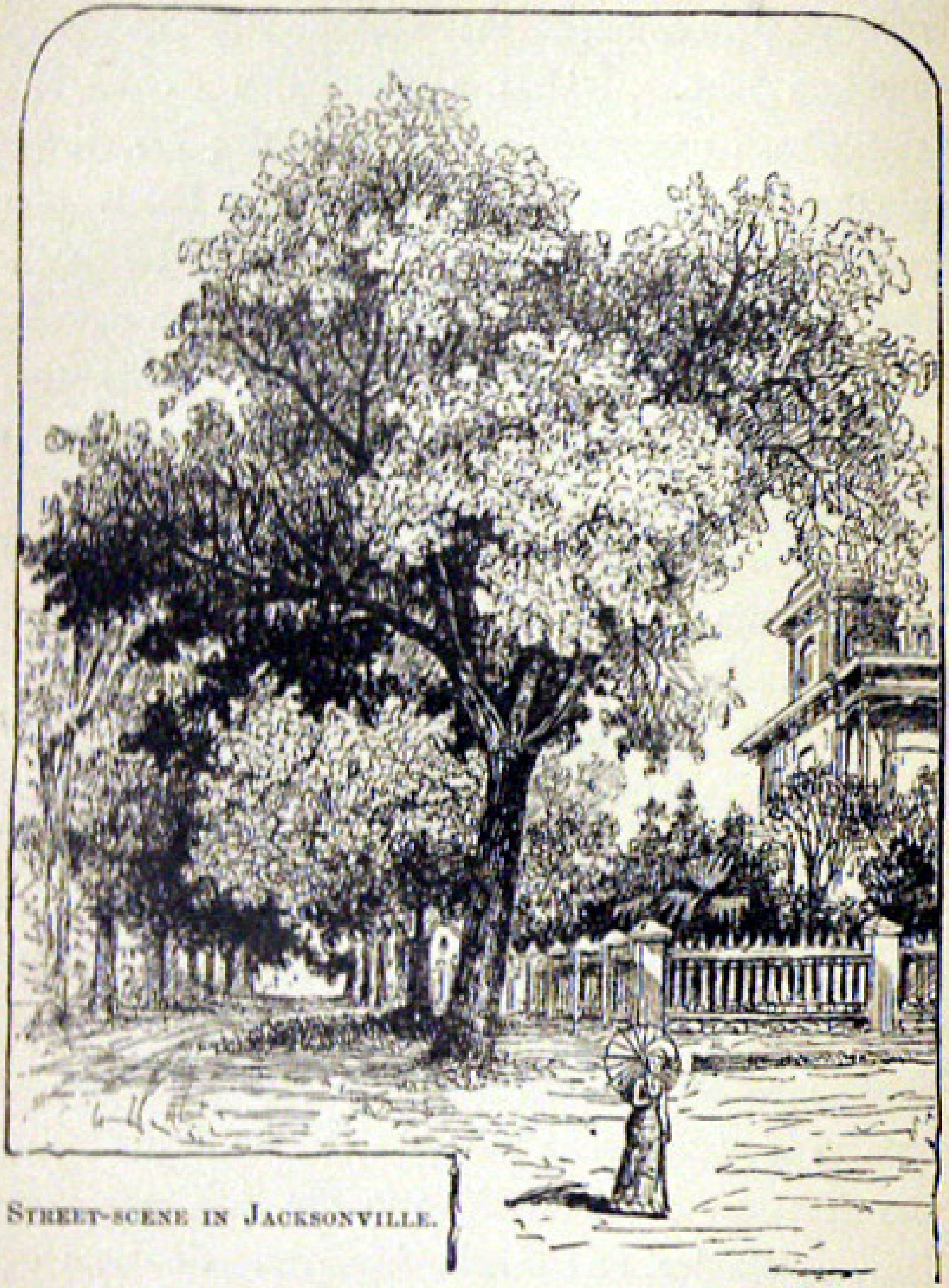
St. Louis is a fit starting-point from the great North-Northwest, embracing Kansas, Nebraska, Iowa, Minnesota, Dakota, Oregon, and the Territories thereabout. From that point the Louisville and Nashville Railway runs two trains a day, passing through the mountain-regions of Tennessee and Alabama, and connects, by way of Pensacola, with the Florida Railway and Navigation Company's road, passing through Tallahassee and the great tobacco and cotton region of Florida.

New Orleans is the starting-point for the Southwest—Mexico, California, Texas, Arkansas, Louisiana, and Mississippi. There the traveler may take the Louisville and Nashville Railway, to River Junction on the Chattahoochee River; thence, by the Savannah, Florida and Western Railway, through Thomasville and Waycross; or by the Florida Railway or Short Line, which passes several points of interest—the Olustee battle-ground, the Suwannee River, and other attractive scenery in Western and Middle Florida.

Jacksonville.—Having reached this travel-center, the metropolis of the State, whether by rail or water, the tourist will pause to consider the outgoing conveyances from this point.

Jacksonville itself is altogether familiar to the reading public, and on that account needs but brief mention here. It has a population of 25,000, and is both progressive and aggressive; has all the modern appliances of comfort — fine hotels and many of them, gas and electric lights, telegraph and telephone, daily newspapers, street cars, etc. The settlement was originally known by its aboriginal name, Wacca Pilatka, which means Cow's Crossing-over—Cowford—Oxford—Bosporus; but it became a whiteman's town in 1816, and in 1822 received its present name in honor of Andrew Jackson. It is largely a Northern city in its spirit and methods; at least not essentially Southern in any characteristic sense.

The city has recently become representative of the State of Florida, by the establishment of the Subtropical Exposition, a permanent institution, there. It is to be kept open every winter season, and is to exhibit the products and resources of Florida and the most valuable and attractive exhibits that can be obtained from the Bahamas, West Indies, Mexico, and South America. Such an exposition is new in the United States, and, when it is fully organized and equipped as designed, will be without a rival in the world. The intention is to increase its scope, variety, and quality every year.



Street-scene in Jacksonville.

Last season's exhibits were eminently successful, and prove the entire feasibility of the general idea. By this means the visitor to Jacksonville is, in a way, a visitor to all parts of the State. Suitable buildings were erected, and these must be extended from year to year. The main building is three hundred and twenty-five feet six inches in length, including towers—twenty feet—at the front end. Its width, including the towers or minarets—twenty feet—is one hundred and fifty-two feet. Engine, dynamos, and other machinery are provided. An annex, of sixty-four by eighty-eight feet, two stories high, is for an art-gallery, restaurant, and other suppletory compartments.

Germane to the spirit, aim, and final cause of the Subtropical Exposition, is the Florida Immigration Association, with headquarters at Jacksonville. This Association, representing all parts of the State, in the same way that the Exposition will ultimately do, was organized for the purpose of furnishing full, authentic, and trustworthy information to those that are looking toward the State with conditional view to making a home there. To carry out this object there has been established at Jacksonville a general agency for the purpose of inviting correspondence. Prompt attention will be given to inquiries relating to any section, locality, or feature of the State. It is the purpose of this Association to deal only in facts, and to avoid exaggerated praise, which ultimately does the State more harm than unjust detraction. The general agent is E. B. Van Deman, Jacksonville, Florida.

From Jacksonville. — There are four general directions by railway from Jacksonville: one westward, reaching Pensacola; one southwestward, reaching Cedar Keys; one southward, reaching Punta Gorda on Charlotte Harbor in the Gulf of Mexico; and two southward, reaching St. Augustine on the Atlantic coast and Titusville at the head of Indian River. These routes are controlled by five companies. Seven years ago there were 537 miles of railroad in the State, whereas to-day there are 2,180 miles.

The five companies are—the Florida Railway and Navigation Company, extending westward 209 miles to the Appalachicola River and to Cedar Keys, and southward to the Withlacoochee River, Tavares, etc.; the Plant System, which reaches southward to Tampa and Punta Gorda; the Jacksonville, Tampa, and Key West Railway, which extends to Sanford, Tavares, Titusville, on Indian River, St. Augustine, and De Land; the Florida Southern Railway, from Palatka to Brooksville and Pemberton Ferry; and the St. Augustine and Palatka Railroad, connecting St. Augustine with Tocoi and Palatka, Jacksonville, Mayport, and Pablo Beach, Pensacola with Millview, Blue Springs on the St. John's with Hillsborough on the Atlantic, and Monroe with Tarpon Springs.

The steamboat line—De Bary and People's Line—from Jacksonville up the St. John's River to Sanford and Enterprise, runs passenger-boats every day except Saturday.

From Jacksonville, accordingly, the traveler can readily reach any point of interest, and these abound in all directions.

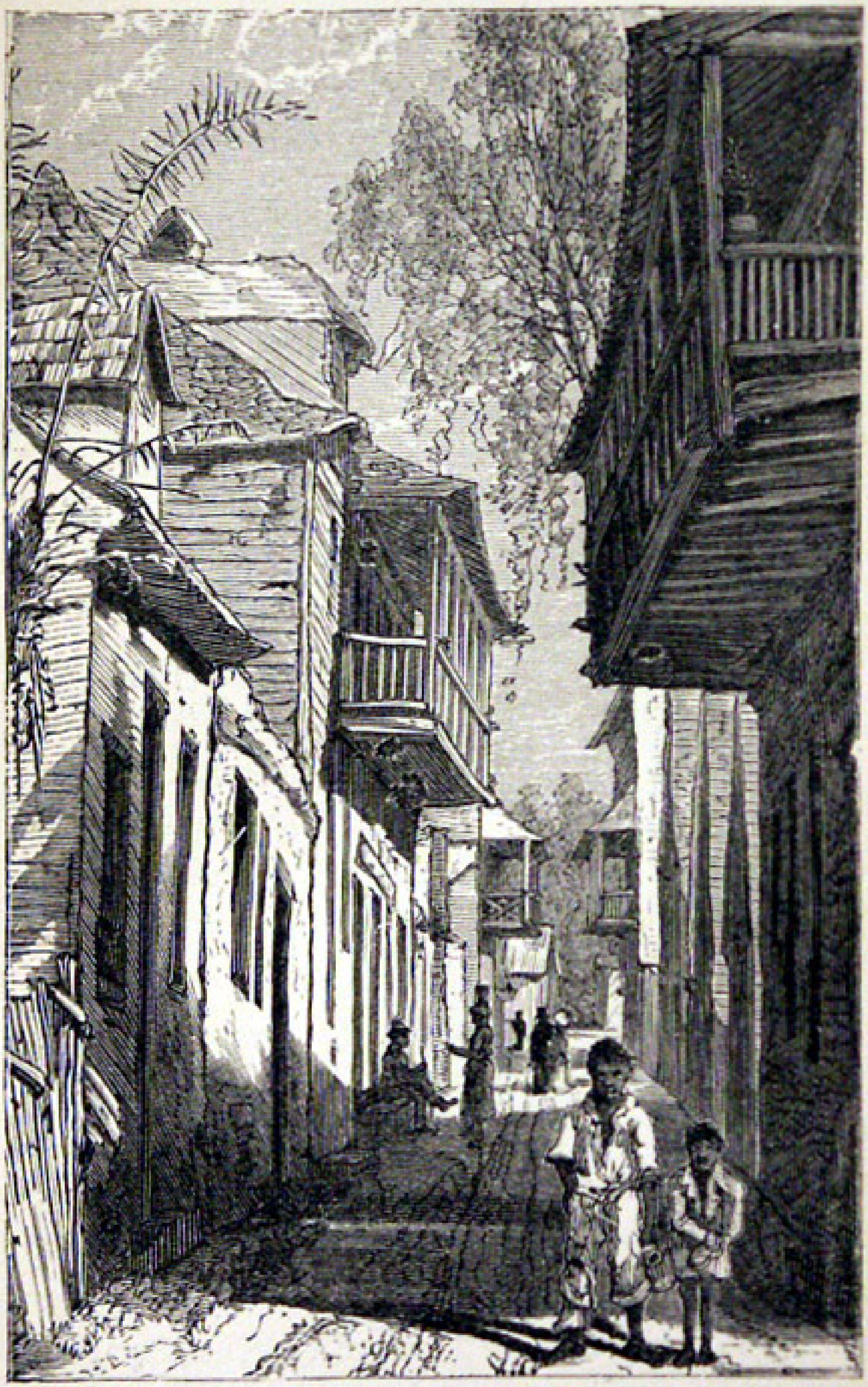
Excursions of a few hours may be made to—

1. *Pablo Beach*, sixteen miles from Jacksonville by rail. It is a sea-side resort of growing popularity, on the Atlantic shore, eight miles south of the mouth of the St. John's River. The beach at this point is one of the finest on the Atlantic coast, being straight, sandy, shelving gently, smooth, and free from rocks and pit-holes. The bathing is perfectly safe. A handsome but irregular little town has sprung up within the last few years, having now a first-class hotel known as Murray Hall, with pavilions, restaurants, and other conveniences and comforts—an establishment as fine as any on the Atlantic coast, not surpassed at Long Branch, Ocean Grove, or Cape May.

2. *St. Augustine*, the oldest city in the United States, is thirty-six miles by rail from Jacksonville. The city—population, about 8,500—is noted for its picturesque beauty; its crumbling old city gates; its odd streets, ten to twenty feet wide, without sidewalks; its coquina-built houses; its overhanging balconies, with a scent of days gone by over all; its governor's palace; its unique sea-wall; the hoary ramparts of its year-laden San Marco; its mediæval-looking Moorish cathedral; and the finest and most striking hotel in the world.

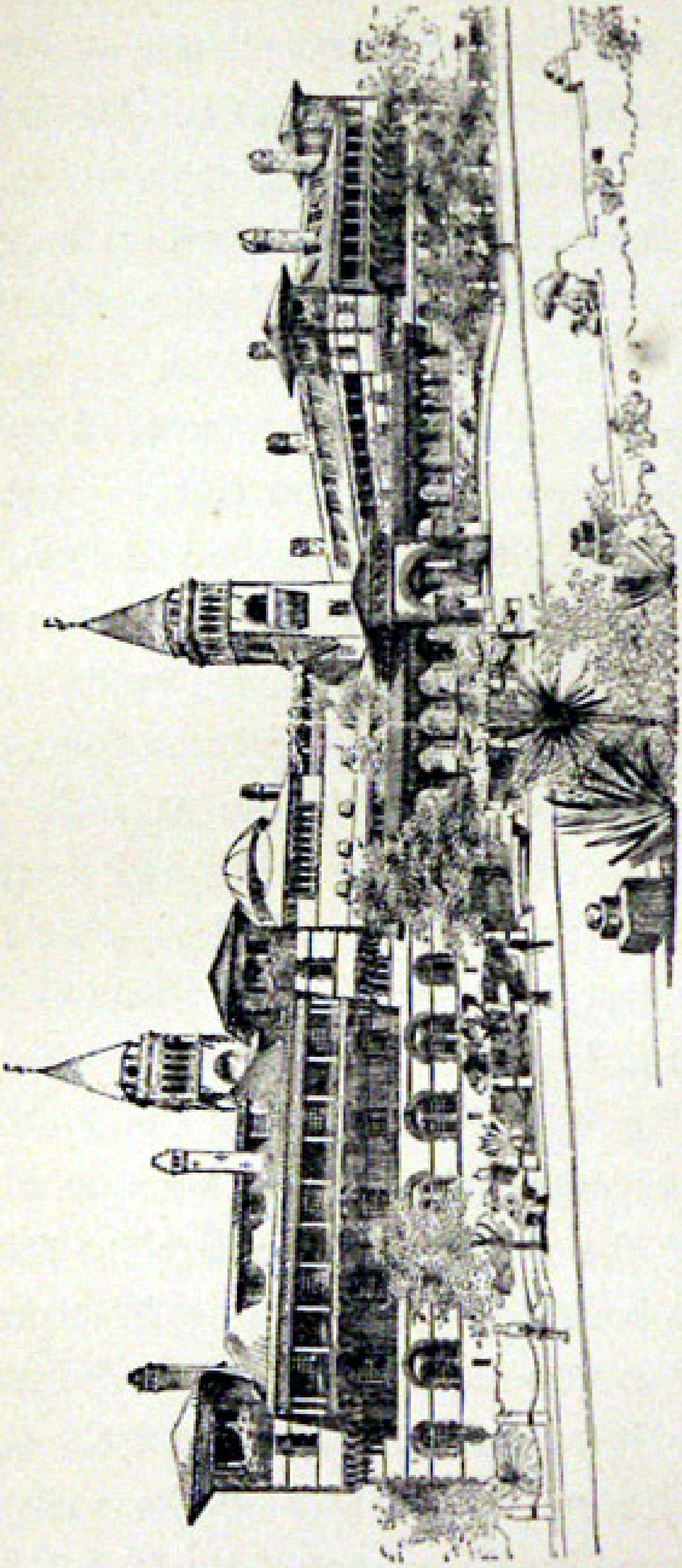
Lady Hardy, in her admirable book of travels, "Down South," a few years ago, of this gaudily solemn old city felicitously writes: "It is like an old-fashioned beauty who has been lying in state through these long years, pranked in all her finery of feathers, furbelows, paint, powder, and patches, and now wakes up and walks and talks with us in the quaint, stilted phraseology of old days."

There is not a step nor a turn in this grand old ruin of other days that is not interesting. The very ocean seems to roll in an antique sort of a way; and the trade-winds that sweep through the picturesque date-palms, magnolias, and oleanders, seem to be whispering in Spanish, or howling in the Cautio vernacular spoken there four centuries ago.



STREET IN ST. AUGUSTINE.

The ancient San Marco is now Fort Marion. It was begun probably in 1565, and is like the pyramids of Egypt in being the work of slaves; and it is a most interesting fossil of a foreign civilization, restored by numerous later touches. The moat is now dried up and overgrown; but there are still the drawbridges, the massive arched entrance, the gray barbacan, the dark under-ways, the sullen bastions, and the crypt-like dungeons. The princely hotel recently built, the Ponce de Leon, has an annex or supplementary house, the Alcazar; and the two, a magnificent unit, unite the old and the new, the past and the present, with wonderful splendor and effect. The Alcazar is unfinished. The Ponce de Leon revives the style of three hundred years ago, and enriches it with all the luxuries of to-day. It is built in the style of the early Spanish Renaissance, with its decided flavor of the Moresque. The material is shell concrete, and the great building is a stupendous monolith, and was molded, not built. The general complexion is a light mother-of-pearl, with bright salmon terra-cotta ornamentation. The greatest turret height is a hundred and fifty feet. The building is five hundred feet long and covers nearly five acres. A thousand guests can be accommodated and seated in the dining-room,



Ponce de Leon Hotel.

and this hall is one of the marvels of this immense establishment. The grand parlor is one hundred and four by fifty-three feet, but is practically divided into five rooms by arches, *portières*, and screens. The drawing-rooms on the first floor surpass in number and style everything of the kind ever presented to the public. Besides all these there are splendid courts, fountains, lakes, tennis-courts, bowling-alleys, bars, billiard-rooms, bazaars, and arcades; but more sumptuous than all are the luxurious Roman, Turkish, and Russian baths. From these access is had to the unrivaled plunge-baths of sea-water, covering nearly half an acre of varying depths from two to six feet. Back of these is the sea-bath proper which may be described as a stupendous cave of solid concrete, one hundred and eighty-four feet by eighty-four feet, and from four to thirty feet deep, altogether making a bath without a precedent in all history. The electric lighting of the building is something phenomenal, and is in keeping with the splendor of the whole. The outlay for this completed main building—the Ponce de Leon proper—is reported as two and a half million dollars; and the Alcazar, it is predicted, will equal the other in both splendor and cost. During the past season, this immense hotel was crowded for full two months, having a thousand guests frequently; the gross income being stated at over five thousand dollars a day.

There are at St. Augustine yet other fine hotels—the new Hotel Cordova, as unique and in most respects as fine and as well appointed as *the* Hotel; the San Marco, the Magnolia, the St. Augustine, and half a dozen minor houses.

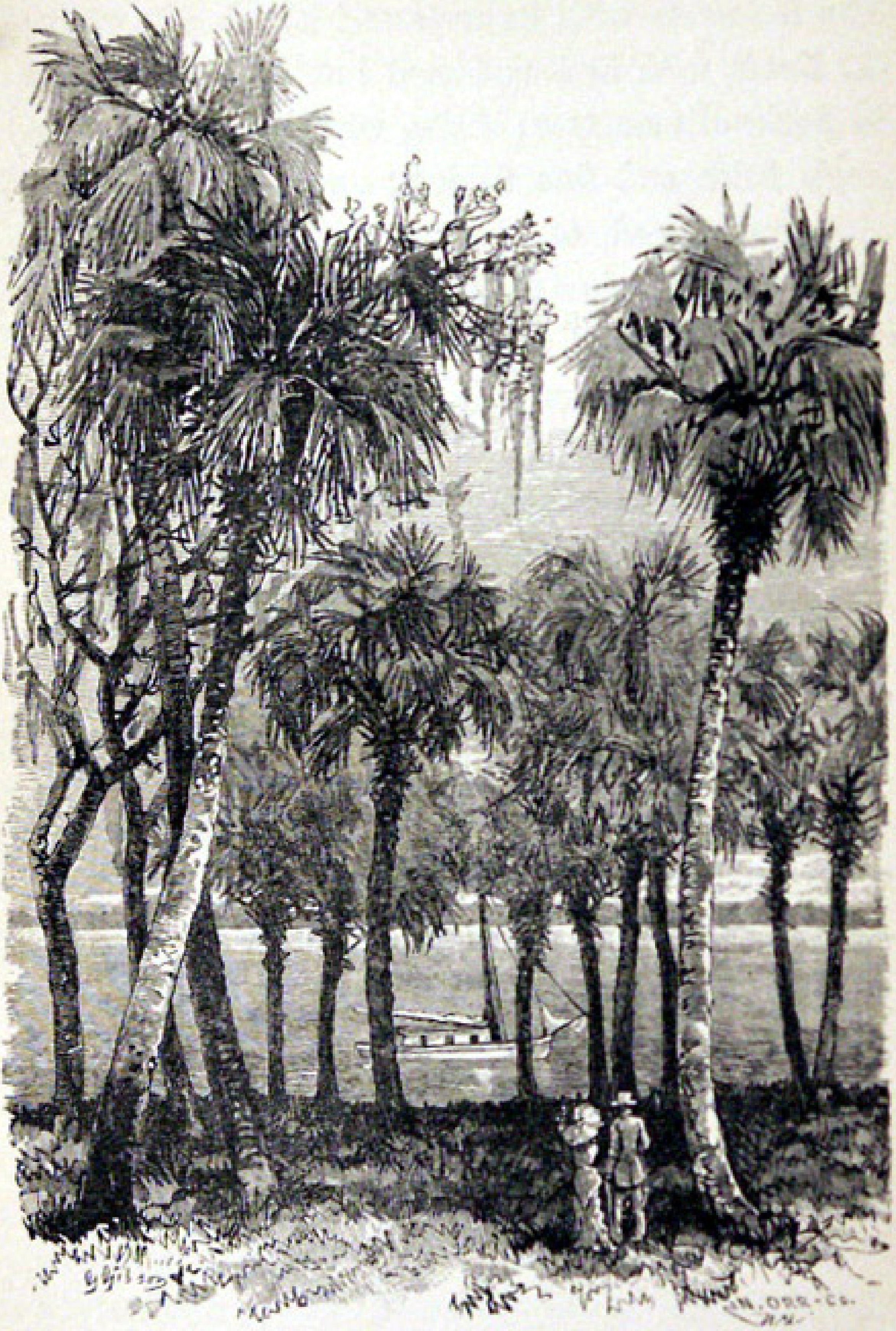
3. *Fort George Island*, at the mouth of the St. John's, has fine tropical scenery, charming walks and drives, and a good hotel.

4. *Mayport*, on the south side of the mouth of the St. John's, is a pleasant little town of perhaps a hundred cottages, many of these being summer residences for business men in Jacksonville. The St. John's was called May by the French, and thence the name of Mayport. Already popular as an excursion resort, it is growing in popularity.

5. Besides the above there are, within easy excursion distance of Jacksonville, *Orange Park*, *Mandarin*, *Magnolia*, *Green Cove Springs*, and scores of others on the St. John's, all having hotels, and all their special charms. The St. John's region is too well known to need a word at this late day.

Longer excursions from Jacksonville lie in all directions southward and westward:

1. Beginning with the east coast, the tourist may make **Indian River** his objective point. This region enjoys a glorious climate, less variable than the interior and west, has fine rich semi-tropical scenery, and grows beyond doubt the finest oranges in the world. From Jacksonville the traveler may go by rail direct to Indian River at Titusville, 166 miles, a town reached by telegraph and express. From that point he may make the entire tour of this famous sound, called by universal consent a river—known to the Spaniards as the *Rio d' Ais*—from Titusville near the head, to Jupiter at the southern extremity, a distance of 118 miles, by steamer all the way. One line of steamers leave Titusville daily, passing *Rock Ledge*, with its first-class hotel, fine scenery, with excellent hunting and fishing; *Eau Gallie*, with its post-office, store, and hotel, with several residences, and its State Agricultural College building, a monument of reconstruction sham and of Gleason; down to *Melbourne*, 39 miles from Titusville, where the flora begins to show increase of tropical elements; and where there is a thriving settlement, largely English, with two hotels, a newspaper, and no end of rod and gun sport. From Melbourne to Jupiter, 69 miles, there plies a steamer three times a week, passing



Looking across Indian River.

The Narrows, with its acres and islands of oysters; *St. Lucie*, with its long-famed hunting-grounds and its flocks of manatees; *Eden*, with its famous pineapple fields and fine fishing; on to *Jupiter Inlet*, the present end of the telegraph line, with its lighthouse 170 feet high. Here the tourist is definitely within the subtropics; and a handsome, well-grown cocoanut-tree is Flora's conspicuous sign of a new climate.

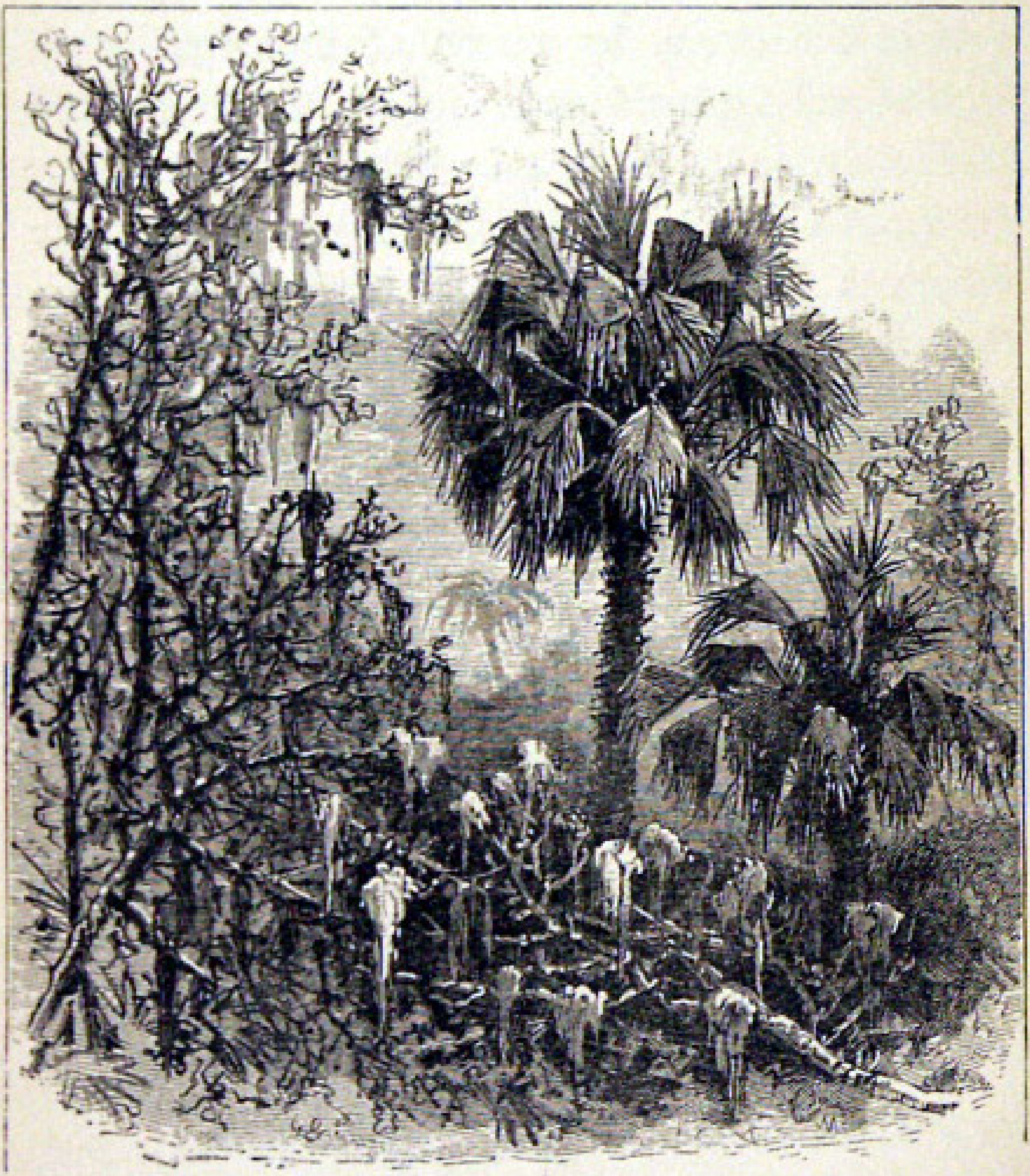
Only a few names of places have been mentioned in this transit from Titusville to Jupiter; but there are more than a score of delightful places, with each a hotel and a post-office. The flora and fauna gradually pass from the semi-tropical to the subtropical as the traveler goes southward. The attempering breath of the Gulf Stream becomes more and more operative until the traveler reaches Jupiter, where the Stream first separates from the land in its course northward.

2. Or, the traveler may make **Lake Worth** his objective point. He would then, as before, go from Jacksonville by rail to Titusville, 166 miles; from Titusville to Jupiter by steamer, 118 miles; from Jupiter by hack to Lake Worth, 8 miles. Once on the lake—which, like Indian River, was originally a sound—he can go to any point in boat, either row,

sail, or steam; mostly sail. Lake Worth is 23 miles long, about a mile wide, and separated from the Atlantic by a narrow strip of land in some places less than a quarter of a mile wide. An inlet near the northern end of the lake connects it with the Atlantic. The water of the lake is less salt than that of the ocean, by reason of numerous small streams and a general seepage from the fresh-water lakes above to the westward. The fresh-water lakes are about a mile west of Lake Worth; so that the fisherman finds three kinds of water in less than three miles—the ocean, the semi-salt lake, and the fresh lakes—with their several families of fishes. Deer, turkeys, ducks, and small game of various kinds are abundant; as indeed they are almost the entire length of the Atlantic coast, but especially abundant in the more newly settled localities. The flamingo, a distinctly tropical bird, has been seen as far north as this lake. The cocoanut-palm grows and fruits here, while it is a very uncertain growth anywhere north of this. The tropical fruits that can be grown north of this region, can be grown here without protection.

3. Or the tourist may make **Biscayne Bay**, about sixty miles south of Lake Worth, his objective point. To this beautiful region there are two

routes. One is, as above, from Jacksonville to Titusville, to Jupiter, to Lake Worth; and there charter a boat and sail down the Atlantic coast, from the head of Lake Worth to Miami, the county-seat of Dade County, 84 miles. From Miami to Key West



A HAMMOCK.

the distance is 130 miles. The other route to the Biscayne region is, to go south down the other side of the State—that is, from Jacksonville to Punta Gorda by rail, to Key West by steamer or sail, to Miami by sail. This Miami region has the usual Atlantic coast variety of soils—pine, hammock, and prairie — with the Everglades lying west of it. Here, in the heart of the subtropics, the visitor sees in the flora the difference between semi-tropic and subtropic. The guava, for example, which grows sometimes as far up as 30°—and land agents in that latitude advertise the guava as one of their attractions—the guava, here in Subtropical Florida, grows to be a tree twenty or even thirty feet high, with a delicious and abundant fruit, while in the higher latitudes it is a shrub about as tall as a man, with a dwarfed fruit that is hardly fit to eat at all. So also with the lime; and, indeed, with all the rarer and more tender fruits. Fishing and hunting both have here the best of fields. The Gulf Stream brings into these waters the whole family of tropical fishes, and carries the same up as far north as Jupiter Inlet. As to climate, this is, especially the northern portion of it, doubtless the most equable in the State; and that, of course, means in the United States. The equability appears to be pretty uniform from Cape Florida to Jupiter Inlet—the region *touched* by the Gulf Stream—and from Jupiter Inlet to Fernandina the equability gradually decreases; but the entire Atlantic coast has less variation of temperature than other parts of the State.

4. **Lake Okeechobee** and the **Everglades** are best reached from Jacksonville by rail to Kissimmee in Osceola County, and thence by boat through the lakes and down the Kissimmee River into Okeechobee. A second route is, by rail to Punta Gorda, and thence by boat up the Caloosahatchee River, into Okeechobee—a lake of about a thousand square miles in area, being about forty by twenty-five miles. The river and lake travel in these routes is not generally so delightful in itself as a vestibuled car; but as a picnic, pleasant and refreshing.

5. **Key West** is in Monroe County, on an island of the name of the city, of about twelve square miles. It is a Spanish-looking town of nearly 20,000 inhabitants, is lighted with gas, runs street-cars, and is reached by telegraph. It is a quaint and antiquely novel city, full of oddities and variety. Dr. Henshall says its buildings are of all sizes and of every conceivable style, or no style, of architecture; and they are promiscuously jumbled together, but are joined or seamed to each other by

a wealth and profusion of tropical foliage, which surrounds, invests, surmounts, and overshadows them, softening the asperities, toning down the harsh outlines, and uniting the separate pieces, which merge their individuality in a harmonious *tout ensemble*. That writer sums up Key West's heterogeneous attractions in these words: "And so, mansions, huts, and hovels, balconies, canopies, and porches, gables, hoods, and pavilions, pillars, columns, and pilasters, are mingled in endless confusion, but harmonized by arabesques of fruit and foliage, festoons of vines and creepers, wreaths and traceries of climbing shrubs and trailing flowers, and shady bowers of palm and palmetto, almond and tamarind, lime and lemon, orange and banana." The population is mainly Cubans and Conchs, but there are also Englishmen, Frenchmen, Germans, Spaniards, Italians, negroes, and Americans. English immigrants from the Bahamas are called Conchs, and settlers from the United States are called Americans. The island is rich in tropical beauties and fruits; and the city is noted for its unique and picturesque features, Spanish tone, and cigar manufactures. In this one industry it employs over three thousand operatives, and handles five million dollars a year. It can be reached, as above stated, from Jacksonville by rail to Cedar Keys, Tampa, or Punta Gorda; and from either of these points by steamer to Key West direct. Or, on the other side of the peninsula, from Jacksonville by rail to Titusville, thence by steamer to Jupiter Inlet, thence down the coast by Lake Worth to Miami in Dade County, and thence one hundred and thirty miles, by schooner, to Key West.

6. **Cape Sable** and the entire southern coast of Lee, Monroe, and Dade Counties are well worthy a visit. Here the subtropical sometimes threatens to become the tropical. Cocoanut groves are here and there, and the royal palm is to be found here, the only place in the whole country. The tourist, in a paradise of Nature, may select any one of a score of attractive points for his visit and temporary sojourn. Around the coast runs a horseshoe of fertile land, not many miles wide at any place, and backed by the Everglades, which center in the great Okeechobee. That part of this horseshoe attempered by the Gulf Stream, the part toward the east on the Atlantic side, is especially attractive. All this region can be reached readily by schooner or other boat from either Key West or Miami; and such boats are on hand all the time, especially at Key West.

7. **Tampa**, some 240 miles from Jacksonville by rail direct, is a typical Florida city, of nearly 2,000 inhabitants. It is interesting for its history, scenery, oranges, fish, and mounds. It is reached by telegraph and express. One writer claims that Tampa is probably older than St. Augustine, and explains that, in the same year that Menendez founded the latter city, his deputy, De Reinoro, was in charge of Tampa. Menendez sent a hundred laborers, including fifteen women, to Tampa to teach spinning to the squaws. Padre Rogel, a Catholic priest, was in charge of ecclesiastical interests at that time, and the following year Menendez made a *Spanish* peace between the Tago and the Tampa tribes at Tocobayo. But no records of that history appear to have come down to this day. It was in Tampa Bay that General Worth persuaded Coacoochee to go West with his tribe, as narrated elsewhere in these pages. It is a few miles south of this city that a very large and old orange-tree was said to be still living that had borne over ten thousand oranges in one year.

8. **Tallahassee**, the capital of the State, is an ideal Florida city, and one of the loveliest in the South; and a most charming community, homogeneous, hospitable, and essentially Southern. It

has a population of nearly 3,000; has excellent hotels, telegraph, express, ice-factory, and is reached by rail direct, 165 miles from Jacksonville. It is the center, too, of many attractive points to visit —historical homesteads, landscapes, lakes, and so on. Two miles from Tallahassee stands Bellevue, the Murat homestead, which was occupied by the widow of Murat, the marshal and King of Naples. The prince spent the last years of his life upon his estate in Jefferson County. He and his widow who survived him many years lie side by side in the Episcopal Cemetery at Tallahassee, with quaint and interesting inscriptions over the graves.

Near by, too, is the site of the old Spanish Fort St. Luis, with noteworthy fragments of ponderous but decaying remains.

9. **Cedar Keys** is by railway direct 127 miles from Jacksonville. It is on Way Key in the Gulf of Mexico, four miles from the mainland. It has three or four thousand inhabitants, two newspapers, two good hotels, a telegraph-office, and an express-office. It is a port of entry, and has shipped as much as $695,000 worth of exports a year, principally lumber, fish, green turtle, and oysters. Imports, about $5,000. A regular line of steamers ply between this port and the West In-

dies. The Eagle and the Faber Pencil Companies have here each a factory for preparing the cedarwood for lead-pencils. It is a fine field for all kinds of fishing.

10. **Pensacola,** 326 miles by rail from Jacksonville, 161 miles west of Tallahassee, was founded by the Spaniards in 1696, and has had an eventful and checkered history. The harbor is described as one of the finest in the world, having an area of about two hundred square miles, is thirty miles long, with an average width of at least seven miles and a depth of from thirty to thirty-five feet of water. The entrance is half a mile wide, with twenty-four feet of water. There are immense quantities of lumber and fish shipped, also some coal from Alabama. There are several newspapers, churches, and hotels; a fine opera-house, an express-office, a telegraph-office, and all the conveniences of a well-appointed city. In that region are the Pensacola Navy-Yard and the Lighthouse, Fort Barrancas, Fort Pickens, and Bayou Grande. Pensacola is a rapidly progressive place, and one having many attractive features for both the sight-seer and the home-seeker. Its climate is all that could be desired, having all the advantages of the North Florida tier of counties.

11. **Appalachicola** has many points of attraction. It is about 210 miles by rail from Jacksonville, and has some 2,000 inhabitants. It is an important lumber-port, and sends out also oysters, sponges, and fish. It has one newspaper, good hotels, and an attractive *entourage.*

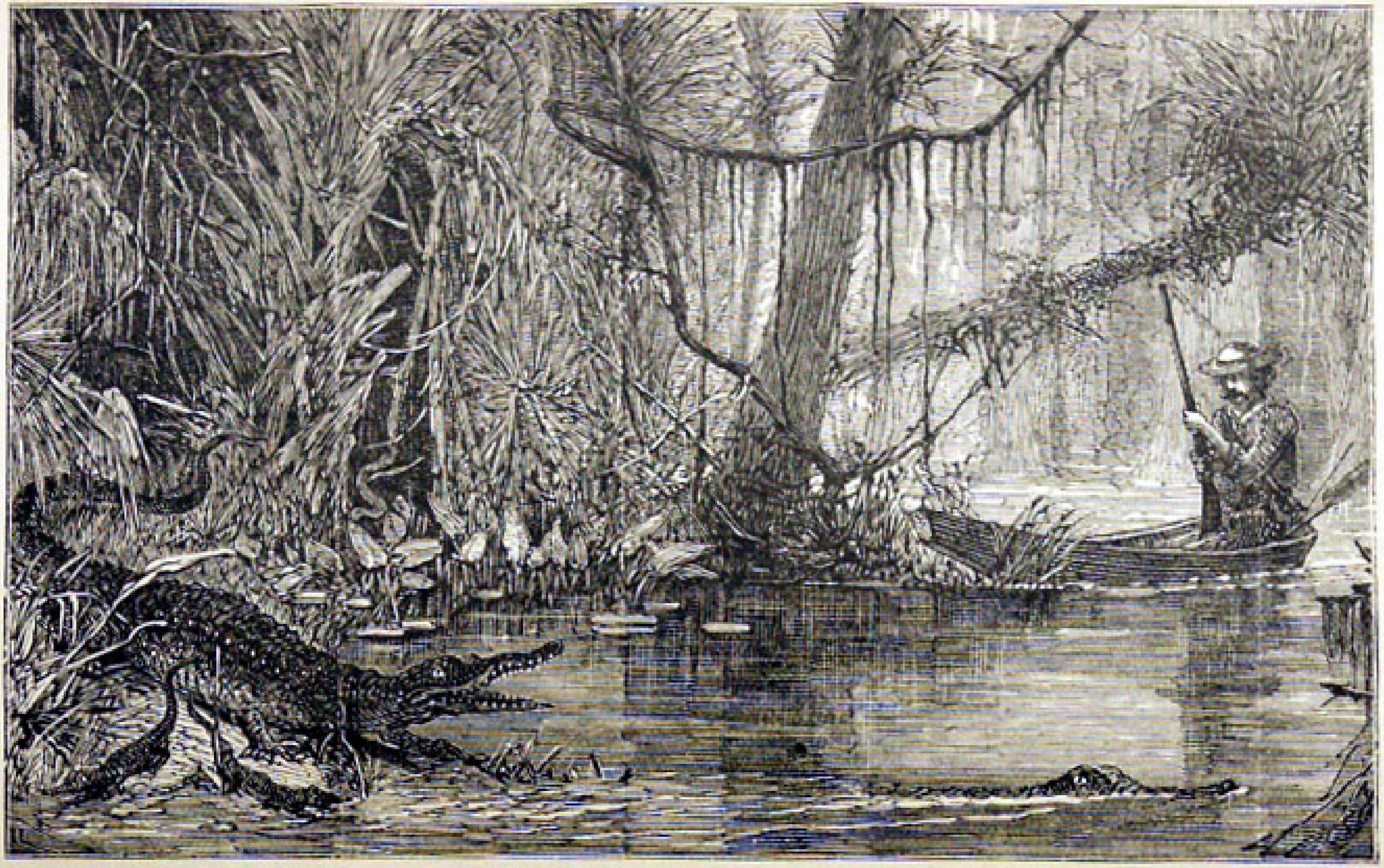
12. **Wakulla Springs,** sixteen miles from Tallahassee, is the source of the Wakulla River. It is nearly circular, four hundred feet wide and a hundred and six feet deep, brightly clear, green of many shades, and intensely interesting. The river that flows from it is two hundred and fifty feet wide at the outset, and deep enough to bear large vessels. This spring is in some respects more remarkable than the famous Silver Spring in Marion County.

13. **Silver Spring.**—This phenomenal body of water is in Marion County, and is now accessible by rail, and enjoys the advantages of telegraph and express. It is described as a vast circular basin, six hundred feet in diameter and nearly fifty feet in depth; is the source of a river known as Silver Spring Run, navigable for small steamers, and which flows into the Ocklawaha River, about nine miles distant. Notwithstanding its great depth, the water is so clear that the smallest object—a nickel

or a nail, for example—can be seen on the bottom. The place can be reached by rail direct, or by rail from Jacksonville to Palatka, and thence by boat up the Ocklawaha River to Silver Spring Run. This and the Wakulla Springs are beyond doubt the most wonderful things of their kind in the world.

An excellent route for the tourist in quest of characteristic Semi-tropical Florida scenery is this: Take the day-boat up the St. John's River to Sanford; thence by rail to Orlando, through the lake region of Orange County, *via* Tavares and Leesburg on Lake Harris; thence down the Ocklawaha River by steamer to Silver Spring; and thence down the river again to Palatka, and on to Jacksonville.

14. **The Ocklawaha River** is comparatively little visited, but is richly worthy a special visit. For the river alone, a good plan would be to go to Leesburg by rail, and thence take river-steamer to Palatka, taking in Silver Spring as part of the route. The Ocklawaha is perhaps the most meandering of all Florida's serpentine streams, and they are many. It flows, in its winding way, through cypress lowlands not elsewhere equaled in their wild and tangled luxuriance. The stately stems of these trees rise sometimes sixty or seventy feet without a



A Scene on the Ocklawaha River.

knot or a bend, and they seem to be as much as four feet in diameter in some instances. The night trip on these boats is especially striking: the glaring head lights, the deep and whirling shadows, the confused glimpses of gloom and grandeur, the poling the grounded boat off shore, the unique signals and shoutings of the crew, the night cries of startled birds and beasts—all these things, varied every minute or two, make up an experience to be found nowhere else, probably, in the world.

15. **The Suwannee River**—known in classic negro minstrelsy as *de Swannee ribber*—is full of interest for its scenery. It is of easy access from Jacksonville by rail direct.

16. **The Caloosahatchee River** is one of the most striking in the State. The canal that connects it with Okeechobee Lake adds to its interest, and makes it the outlet of the lake to the Gulf of Mexico. It is the only river of any considerable size in the Subtropics. Its flora is specially rich and attractive. Tropical trees appear—and semi-tropical trees attain greater size than they do farther north. Cocoanut-palms thirty years old are to be seen here. For thirty-five miles from its mouth this river has a depth of eight feet, and a width generally of a mile. The banks are covered with thick set tropi-

cal vegetation: oak-trees festooned with long moss and air-plants, palmettoes of several kinds, and tangled mangroves. Now, that the canal leads into the lake, steamers may enter the river at its mouth and reach Kissimmee in Osceola County, some 400 miles. At the mouth of the Caloosahatchee is Punta Rassa, the great transfer shipping point for Key West, which lies 160 miles southward. Cattle for the Southern markets, mainly Key West, has been the great export from Punta Rassa. The Caloosahatchee Valley has a history too. Bloody work was done there in Seminole-war days. Forts mark centers of military operations. Fort Myers, with its surrounding town, stands conspicuous. Mounds point back to prehistoric times and to a history before the Seminole disgraced humanity and before De Leon and the other swaggering *Adelantados* had discovered and *conquested* this Flowery Land. A distinguished veteran traveler, after having seen all parts of Florida, said of this beautiful valley that, if he were a young man beginning life, it is here that he would settle and make his home. A higher compliment than this it would be difficult to pay any one place where attractive places abound.

17. **The Homosassa River** is midway between the subtropical Caloosahatchee and the minstrel-famed

Suwannee in floral and climatic features. These features are doubtless equally beautiful and interesting, in their three several ways; and in this sense it is idle to make marked discriminations in comparing the separate attractions of a State beautiful from end to end.

18. Besides and beyond all these and scores of places of equal interest, there are yet other scores each one of which is known to a select circle as the finest spot in Florida—the Eden of garden-spots—the one Paradise of the earth—the none-such and only original heaven on earth—and so on. And most of them *are* very lovely and attractive places. The land-sharks and the paper-town men, with the professional boomers, have exhausted the vocabulary of commendation and bankrupted the dictionary in laudations over their moss-covered gall-berry swamps and desolate third-rate wet pine-barrens, until the conscientious chronicler of sober truth fears to tell what he knows to be true of scores of fine places all over this beautiful land with its glorious but little understood anomalies of climate and its rare sanatorial advantages.

19. **Mounds.**—The excursionist with antiquarian proclivities will find attractive objects to visit all over the State, in the ancient mounds. There are

fully two hundred of these. They are of many shapes, heights, and areas. The shapes are oblong, circular, rectangular, and irregular. The heights vary from three to thirty feet, with diameters from ten feet to eight hundred feet; and the areas from a hundred square feet to half an acre. They are in all parts of the State, but are perhaps most abundant on the Gulf coast—Anclote, Dunedin, Pinellas, Tampa—but everywhere. The materials are mostly shell, sand, and other soils; some of them shells and sands alternating in layers eight to twelve inches thick. The uses for which these mounds were built are little understood, various theories having been put forth. Some hold that they were for tombs merely; and the presence of human bones in many of them clearly suggests this; but the absence of all traces of such bones in others tends to throw doubt on the tomb theory. The skeletons found generally lie on the right side, ranged radially with the head toward and near the center. Others hold that the mounds are palace sites for the residence of the sachems and sagamores. Others hint at religious uses, sacrificial altars, and the like. Others regard the mounds as outlooks or sentry-towers for the tribe sentinels on guard, to watch against invasion in canoes. Others yet maintain that the mounds are merely accumulations of shells, bones, and soil, brought together by grand feasts or communistic boarding-houses. Some claim to find evidence of cannibalism and cremation in these bone-piles. Most writers assume that these mounds are the work of the aborigines found in the country by the Spaniards; but the Indians are said to claim that the mounds were there when they came to the country. This, however, is worth very little as evidence, although it is doubtless true of the Seminoles of to-day. The finding of a pair of scissors, fragments of a looking-glass, and glass beads, in one mound, indicates that *some* of the mounds at least have no very great antiquity. On the contrary, however, the presence of old trees on the mounds, as large as those of the adjacent forests—at Pinellas and Dunedin notably—point to a pretty early day and date. Whatever their age, use, or origin may be, they are objects of interest, and the inquiring mind anxiously awaits revelations and developments. There are several valuable papers on these mounds in the Smithsonian Reports of some ten years ago.

VIII.

POPULATION.

The history of Florida, its physical features, and its population, are singularly alike in having elements that are exceptional, many, and diverse.

Peoples.—The population of to-day is made up of at least four peoples: the old residents, with whom the Southern immigrants readily coalesce; the Northern and foreign immigrants; the negroes; and the Indians.

Old Residents.—These, mainly British, lived in the northern part of the State, west of the Suwannee River. In that region, in *ante-bellum* days, were large and profitable cotton-plantations, stately old residences, luxurious homes; a cultured, well-read, refined people, proud, self-reliant, self-supporting, courtly, exclusive in a way, but withal hospitable, liberal in spirit, religious, conservative, and charitable. Slavery — an institution in its main features distinctly patriarchal — furnished organized labor; and wealth, with its ease, leisure, and other advantages and amenities, marked a community of noblemen without rank. The descendants of that day and generation are to-day the old residents, the old-timers, the Bourbons of the State. With these, and in fact of these, is a community of earnest and energetic men, less wealthy and less cultured, but withal of the same spirit and the same civilization, and forming one with them in all the essentials of character. The cracker may be defined as the poor man that prefers ease to hardship, content with little, jealous of intrusion into his unkempt life, shrewd, narrow, uncouth, unlettered, homely, conservative.

These, in short, are the old residents—the wealthy old-timers, the yeomanry, and the crackers—all in their several ways Southern; and Bourbons all.

The immigrants from the old slave States, where a like spirit prevailed and similar classes grew up, readily and naturally blend with the above, and the two are essentially one. There are settlers from every Southern State, and these of all the classes and varieties. In 1880 the percentage of natives born of all colors was fifty-eight; and of Southern immigrants, twenty-nine.

These Southern people of Florida look with intelligent interest at the incoming tide of immigration, and welcome it heartily. They wish to see the State developed in that way. What they may resent with some ardor, and doubtless do often resent, is the missionary spirit that seeks to change, asking them to discard the old and adopt the new —a tone of infinite superiority that some persons use, that offends the inherent conservatism that marks this people. But the straight-forward man that means business is always cordially welcomed.

Northern and Foreign Immigrants.—These classes comprise a large body of very miscellaneous materials. All classes of almost all countries are represented. The Northerners come from every Northern State and Territory except Alaska. There are a great many of them earnest, industrious, thrifty, intelligent, and progressive men. Some bring capital and improved appliances in the industries; some bring brain and brawn only; and some bring the worst qualities of the sharper, the adventurer, and the tramp. They are as varied as are the motives that bring them to this old-new country. Much of the push and energy and the resultant success of the State is due to the better of these workers. Not all the boomers, blow-hards, and paper-city humbugs are importations. Native talent has contributed a share of these. Upon the quality and character of Northern immigrants, Mr. O. M. Crosby, a native of New England, gives this well-considered testimony: "As a rule, settlers in Florida come from the class of well-bred Northern persons who have been unfortunate in the scramble for wealth and position, or have bodily ailments which a balmy climate is expected to cure. Another class, that can hardly be called settlers, represents those who own orange-grove villas or cottages, occupying them only during the winter, as many do their cottages for the summer at Northern sea-shore resorts. Persons of the first-mentioned class are often visionary, fluent with the pen, and unpractical, while those who reside only a portion of the year in Florida are hardly to be considered among the effective population; and to a smaller third class of poor, 'make-a-living toilers' belongs much of the credit of Florida's practical advancement. These are they who have brought Northern energy and common sense together, and what they have achieved is worth all that has been written by those who have theories yet untried, but who are anxious to get them into print. The Northern settler at first is invariably hampered by his conceit. He 'will show the slow-going natives a thing or two,' and it is usually after he has sunk most of his available capital that he is ready to admit that these natives can teach him. Usually a compromise in methods is the result. It is a trifle humiliating to the average Yankee settler to find that the largest and most productive orange-groves are often owned and cultivated by native Floridians or Southerners, whom in his superior wisdom he had considered as lacking in successful methods."

If the miscellaneousness of the American contingent is striking, that of the foreign settlers is necessarily more so. They come from British America, Mexico, Cuba, Central America, and South America. The Europeans come from England, Ireland, Scotland, Wales, Austria, Belgium, Bohemia, Denmark, France, Germany, Greece, Holland, Italy, Luxemburg, Norway, Poland, Russia, Spain, Sweden, and Switzerland. There are Asiatics from China and India, Africans, Australians, Sandwich-Islanders, and Atlantic-islanders.

In such a variety of nationalities there is, of course, a vast diversity of characters, talents, motives, and results. While, in such an agglomeration, there must be much riff-raff, there are at the same time experts in some of the best and most promising industries—as the wine-growers of

France, the silk-growers of Italy, the tobacco-growers of Cuba, and the tropical-fruit growers of South America.

Negroes.—The negroes of Florida are mainly resident freedmen, with some *politicianal* additions made during the period of muddle known as reconstruction. The former make up the great collective body of this people, and they preserve the traditions and the genius of their race with excellent fidelity. The fortunes of war gave them freedom, and citizenship has followed through means similarly summary. A recent Northern writer, with striking frankness, says that the newly enfranchised slaves " lost no time in deserting the great army of producers to engage almost *en masse* in the more congenial vocation of politics; the production of the staple crops ceased almost entirely; the plantation was deserted for the town and the cross-road rendezvous." During the period between 1865 and 1876 these slaves worked faithfully in the plantation of politics; but at the latter date a second emancipation changed their status slightly, and since then they have been working somewhat more and voting rather less, and are doing vastly better in all important respects. So also is Florida prospering. The future fortunes of the negroes are largely in the hands of the controlling race, and they themselves will probably have little to do in shaping it; and doubtless the less they have to do with it the better.

A Northern writer elsewhere quoted—Mr. O. M. Crosby, author of "Florida Facts"—makes the following pointed remarks upon this matter: "Outside of the old slave-owning settlements negroes are scarce, they preferring as a rule to work for their old masters rather than to be driven by the impetuous Northerner, who they suspect wishes to get more work out of them than is agreeable to their indolent nature. While the African is as necessary in clearing away forests and in hard manual labor as the Irishman is at the North, now that he is free he has no idea of working more than is barely necessary to keep him in pork and grits. His rations cost at most but a dollar a week, and he sees no reason in working six days out of seven, when three or four provide for his own wants and those of his family. There are few colored men that will agree to work faithfully by the month, or, if they do so agree, they often excuse themselves when most needed with an 'I reckon I won't work to-day, boss,' that is aggravating to the new settler, anxious to get his grove planted at the right time, and who is used to having hands whom, after hiring, he can command. Contractors needing one hundred men usually employ one third more, to keep the ranks full, and then are often left with but a few, especially after pay-day, or until the men begin to get hungry again. Few darkies are providential enough to lay up enough to last them from week to week, and, as their sense of honor is low, they can not be 'trusted' at the stores. Employers are usually 'dunned' every day for money, for rations, or 'baccy.' Withal they are so thoroughly good-natured, with a don't-care-for-tomorrow air, that the driving employer soon finds it necessary to be more easy with them, realizing that crowding will cause them to leave him unceremoniously." The same writer further says: "The negro problem will assume a new form, to even the most rabid abolitionist, after a residence in Florida. If he employs colored help, paying promptly, feeding well, and treating humanely, he will naturally expect the return and obedience he would from laborers at the North, and will be surprised to learn how utterly shiftless and devoid of all honor the average Southern darky is, and will soon find out that the latter would much rather work for his old owner than for him."

The amount of property acquired by the negroes is encouraging; and it is a very suggestive fact in this connection that their greatest progress—and almost their only material progress—has been made since 1876.

As to the negro's freedom in voting there could hardly be a better witness than Mr. Hamilton Jay. This writer of himself says: "I am a Northern man by birth and education, and came to Florida in 1871. For nearly ten years I was prominently identified with the Republican party in Florida, both in a journalistic and official capacity. In the national election of 1876 I had charge of the United States soldiers at the polls in Jefferson County, and during the work of the returning-board at Tallahassee I was editor of the 'Daily Union,' a stalwart Republican newspaper, then published at Jacksonville." Of negro voting Mr. Jay says: "I state most solemnly and truthfully that I have never seen a negro intimidated by a Southern white man in his exercise of the elective franchise. On the contrary, I have on more than one occasion seen Southern white Democrats go with negroes who hesitated to approach the polls, and stand by their side while they voted the ticket they desired to vote, the Republican ticket."

Indians.—The Indians of Florida are called Seminoles. The original Indians—after the aboriginals had risen, flourished, built their mounds, and disappeared—appear to have been Miccosukies. With these subsequently mingled many fugitives from the Carolina and Georgia Muscogees or Creeks under Secoffee, a noted chief who invaded Florida and settled there in 1750. These fugitives, it is stated, were first designated as Seminoles—meaning refugees, runaways, vagabonds—and finally the remnants of many tribes that remained in that region first endured and then embraced the name. Whatever the etymological facts in the case may be, the prowlers, numbering nearly three hundred, now living in Subtropical Florida and gadding about the country, look the name perfectly. In addition to the general mixture of Indian bloods, hundreds of runaway negroes have been absorbed; and the half-breeds on the white side have a pretty low grade of pale-face blood to boast of.

The latest Government reports state the number of Seminoles as about two hundred and sixty-nine, one third of whom are of fighting age, and living in the counties of Lee, Monroe, Dade, and Brevard, principally in the Everglades. But the Indian evades the census-taker as he would the plague;

and will lie without stint, with no motive higher than to circumvent the white man.

They live in shifting settlements, called villages, each one under a chief. The old-time wigwam has given place to the modern house, cottage, or shanty, built of lumber, rough but hewn or riven. Piazzas and windows begin to appear. But the dwellings of the many are shanties. These consist of upright posts driven into the ground; the roof, a thatch of palmetto-leaves tied to cross-poles; the floor, on shorter posts about a yard from the ground; the sides of the one-roomed houses being open or but slightly protected with palmetto-leaves. In the daytime when at home they sit on the floors, and sleep on them at night, the beds so called being rolled up during the day. Their lighter social or domestic gatherings around the evening yard fires are—to put it mildly—informal, and the individuals are diversely occupied. Mothers fondle their papooses, and shell beans, pound hominy in mortars, or pull buckskin, or do some other hand work. The children and dogs roll and tumble about together in play. The men repair their arms and other implements or accoutrements, mold bullets, look on, talk, and smoke. The sages—old men always lapse into sages, it seems—stare into the fire and grunt monosyllabic responses to those around them. The family pot for next day's feed is boiling over the fire, while some matron gives it her attention from time to time, adding water, salt, and onions, as her judgment dictates, and a precious mess of nauseous stuff it generally is! In the ashes potatoes are roasted. They crawl away to bed, one after another, as the spirit moves.

Young men and spinsters are not expected, nor indeed allowed, to talk to white visitors, while the old men are near. The young must affect not to understand English on such occasions.

Near each village there is always a public *campus*, with a tall pole in the center. Here their festivities all are held. These are their stated dances, the most important of which is the green-corn dance—a sort of annual worship of Ceres. The celebration consists of dancing around the pole, eating green corn, and drinking whisky (*wy-o-mee*), which of late years is the most important feature.

They grow corn, rice, potatoes, sugar-cane, melons, and some fruit, and keep hogs, cattle, a few ponies, and poultry.

The men usually wear a calico shirt, middle wrap, a shawl, and a turban, and on some special occasions, as when visiting the white settlements or hunting in the scrub, pantaloons or leggings, and moccasins. The turban is a conspicuous and picturesque affair, and quite Oriental in its effects. It is sometimes nearly two feet in diameter, and four to six inches high. It is made of shawls or wraps of some kind, the outside layer being often a showy bandanna. It is a heavy affair, and seems to require a conscious effort to keep it in balance. The chiefs distinguish themselves, especially on occasions of state, with something—no matter what—showy, expensive, and *outré;* often a highly fancy hunting-shirt with broad collar and fringes all over, and tawdry stripes and ribbons. The children, popularly known as pickaninnies, not papooses, about their homes generally wear nothing; but when traveling they often wear loose wrappers, especially in winter, and during youth wear but scant apparel.

The turban is for a *toga virilis* of the males, and is assumed between eighteen and twenty. Every brave has a gun, generally a rifle, the Winchester being most common. The traditional bow and arrows are now the toys of children.

The children are cheerful, active, and full of play, eager to learn to shoot, to sail boats, to read, to write, and other like things of the outside world;

but the older folks are glum, self-satisfied, secretive, conceited, and proud of their ignorance.

The women wear calico skirts and jacket, or a plain frock, and beads, and they generally go barefoot. Their beads are absurdly piled up; sometimes as many as fifty strings of cheap, colored glass beads are piled up around the neck and shoulders. The old women tie up the hair in a knot on the back of the head, while the spinsters wear it loose, banged, and, on rare occasions, braided. The old squaws are hideously hard-featured, and formerly they did pretty much all the house and kitchen drudgery; but of late years the men, boys, and girls join in the general work.

The following account of a very recent visit to a Seminole camp on the Miami River in Dade County gives a fair idea of subtropical savage life in 1888: "At length we came to a trail or path which led to the Indian camp. This camp is composed of several huts, having no siding, only floors of rough-hewn boards, black with dirt, raised about two feet above the ground. Roofs of palmetto-leaves are all the protection they have against the inclemency of the weather. They had no furniture of any kind, no table, chairs, not even stools or benches to sit on. A few pots and pans stood around, which were used for cooking in, but we did not see any dishes; all must eat out of one pan, using their fingers.

"Everything was in confusion—clothing, bedding, beads, vegetables, and cooking-utensils. They have strings of small turtle-shells, with some kind of seeds, which they fasten around their knees when they dance, the seeds rattling like shot in a glass bottle with every movement of the wearer. Dried skins of bears, wild cats, deer, and other animals were scattered promiscuously about. Lean-looking black pigs roamed at large about the premises. An old hen sat complacently on her nest made of a new calico dress skirt which lay on the floor. Here and there were large pans filled with potatoes, vegetables, and venison. Biscuit weighing about a pound apiece, and fish cooked whole with head and scales on, stood ready for any one whose appetite could be tempted by such dainties.

"We saw none of the Indian men in camp; they must all have been in the field at work. But squatted under one of the roofs was a pickaninny, a boy about four or five years old, and three pretty young squaws, daughters of Billy Harney. The younger one of the squaws was really handsome, with large, beautiful dark eyes, mild and fawn-like in expression, her dark cheeks glowing with health, as she moved about in a graceful, gliding manner peculiar to the race. All wore calico skirts fancifully trimmed; and small shoulder-capes, which barely reached the skirt-band, answered for waists. Several pieces of bright tin, about the size and shape of a silver dollar, were fastened at the bosom. Some eighty or a hundred strings of various colored beads were wound around their necks until they reached nearly to their chins.

"One of the squaws was sewing, using a thimble, and the sewing would do credit to many a white woman. They talked in their own dialect among themselves, in a low, almost inaudible tone. We could not make out anything they said, although I think they understood us pretty well, as they seemed pleased if complimented."

The Indians frequently visit the white settlements, to sell hides, venison, turkey, potatoes, etc., and to buy guns, ammunition, sugar, coffee, cloths, and whisky—always whisky. Their words are few—for the whites—*in-cah*, good; *ho-le-wa-gus*, bad; *wy-o-mee*, whisky—they need few others. Letters they call talk-paper.

These Indians often live to a great age. Several are believed to be past a hundred.

The Seminoles of the present generation are better than those of the last were, albeit the progress is passing slow. Those old fellows that tomahawked children and cut women's throats while Jackson was Governor in 1821 are in no mood to forgive anybody to-day. It is not the Indian's revelation to have merely an eye for an eye and a tooth for a tooth; but his ethics demands everything for anything, and his worship is carnage and his sacramental wine is blood.

Those old fellows believe that no civilization has ever equaled theirs; and they have but a contemptuous idea of the Big Chief at Washington, albeit they have learned—from pedagogues like Worth—to have a certain respect for the United States soldiers that come near them. These sages refuse frequently even to confer with the United States agents sent to them of late years. Old Chipco said to the agent a few years ago that they did not want to hear any "Washington talk." Special Agent Wilson in 1887 was sent to buy lands for as many of them as would settle and remain settled on the lands. He had an interview with Old Alleck, as he is called, the centenarian chieftain of a cluster of shanties and may be a score of so-called braves, and in his official report gives this account of it:

"The old fellow is bent and shriveled with age (he told me he was one hundred years old, and I incline to believe he is older), his sight and hearing are both badly impaired, and as he sat conversing with two other old 'veterans' not many years his junior, I then beheld what to my mind was a group of typical aborigines.

"I made known my business to Old Alleck through my interpreter, who listened very courteously to all I had to say, and then gave vent to the most derisive and sarcastic laugh I ever heard, after which he proceeded with a long harangue, not a word of which was intelligible to me because of his hoarse guttural style of utterance, but I was told by my Indian friend that he would not accede to any of my propositions."

A fairly illustrative picture of Seminole character, spirit, and civilization of the past generation, at its best, is the row raised by the sainted Osceola, when the agent at one of our stations issued an order forbidding the sale of ammunition and arms to the Indians. This order was issued after repeated proofs that the Indians were arming themselves for further treachery and greater butchery. Osceola, the gentle martyr and ideal Stoic of the woods, was denied the privilege of purchasing powder to shoot more women and children with; and, bursting with rage, gave vent to his noble feelings in these words: "Am I a negro—a slave? My skin is dark, but not black! I am an Indian—a Seminole! The white man shall not make me black! I will make the white man red with blood, and then blacken him in the sun and rain, where the wolf shall smell of his bones and the buzzard live upon his flesh!"

IX.

EDUCATION.

There is little to note in regard to education in Florida, except that it has fully kept pace with the general progress.

The common-school system is popular, well supported, efficient, and eminently successful—in very few of the States, indeed, more so. Beyond this, the details of its operation will not interest the general reader. Superintendent A. J. Russell, to whose ability this success is largely due, gives the following in his latest report:

The whole number of schools reported for the scholastic year 1886-'87, ending September 20, 1887, is 2,103. The total enrollment for the year 1887 is 82,453 pupils. The total average daily attendance is 51,059 pupils, which is 67 per cent of the total enrollment. The increase in daily attendance over preceding year is 6,246. The total number of teachers employed is 2,318—1,739 white and 579 colored. Total funds expended for school purposes, raised by State and counties, $449,299.15—a *per capita* of the total enrollment of $5.45 a year, and of the average daily attendance, $8.80 a year.

In addition to the common schools there are several important institutions for higher and special education, such as—

The Florida Agricultural College at Lake City, endowed by the United States, where students of the State may receive a full collegiate course and a thorough practical course in agriculture free of all expense, except for board at a very moderate charge. Students not desiring to take the literary course may take a special course of six or twelve months at option in agriculture.

The East Florida Seminary, at Gainesville, a large military and normal institution, with a fine corps of teachers.

The West Florida Seminary (Seminary West of the Suwannee River), at Tallahassee, similar to the preceding; the two seminaries having a joint endowment fund of $92,300, affording a revenue of $5,695, which is divided equally between them.

The Florida University, at Tallahassee.

An Institute for the Deaf, Dumb, and Blind, recently established by the State at St. Augustine.

Both races are admitted, the buildings for them being separate.

Rollins College, founded in 1885, at Winter Park, Orange County, with an endowment amounting to $114,000.

De Land University, at De Land, Volusia County, chartered in 1887, had been for some years growing up from the De Land Academy. It has four departments in successful operation.

A State Normal College for each race was organized and opened during the past year. The one for whites is at De Funiak Springs, Walton County; and the one for colored students is at Tallahassee. Both are in operation to-day.

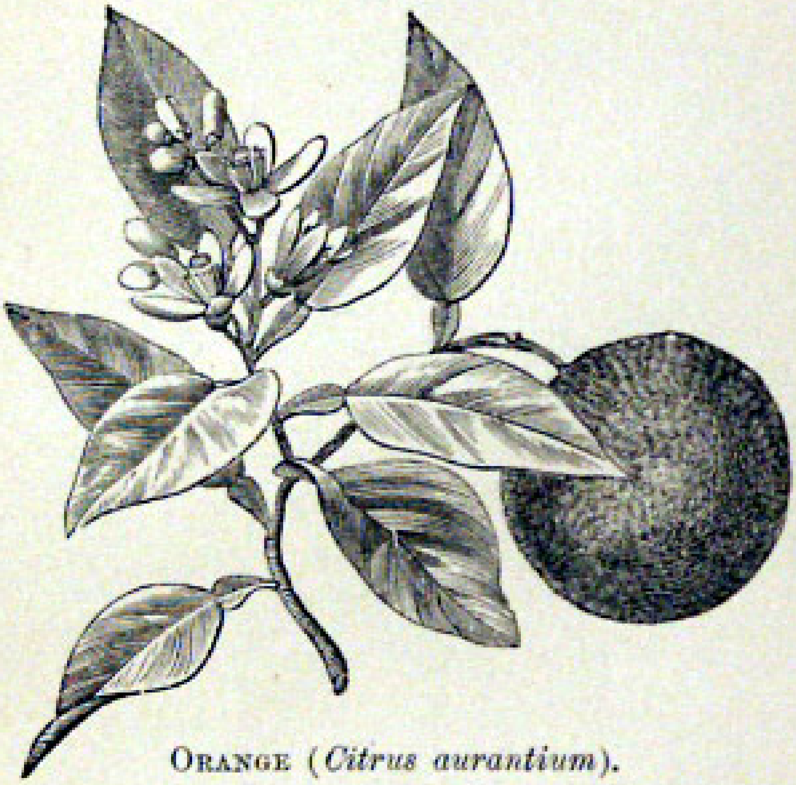
X.

PRODUCTIONS.

The productive industries of Florida are numerous, varied, important, and to a considerable extent peculiar. The variety of products is greater than in any other State.

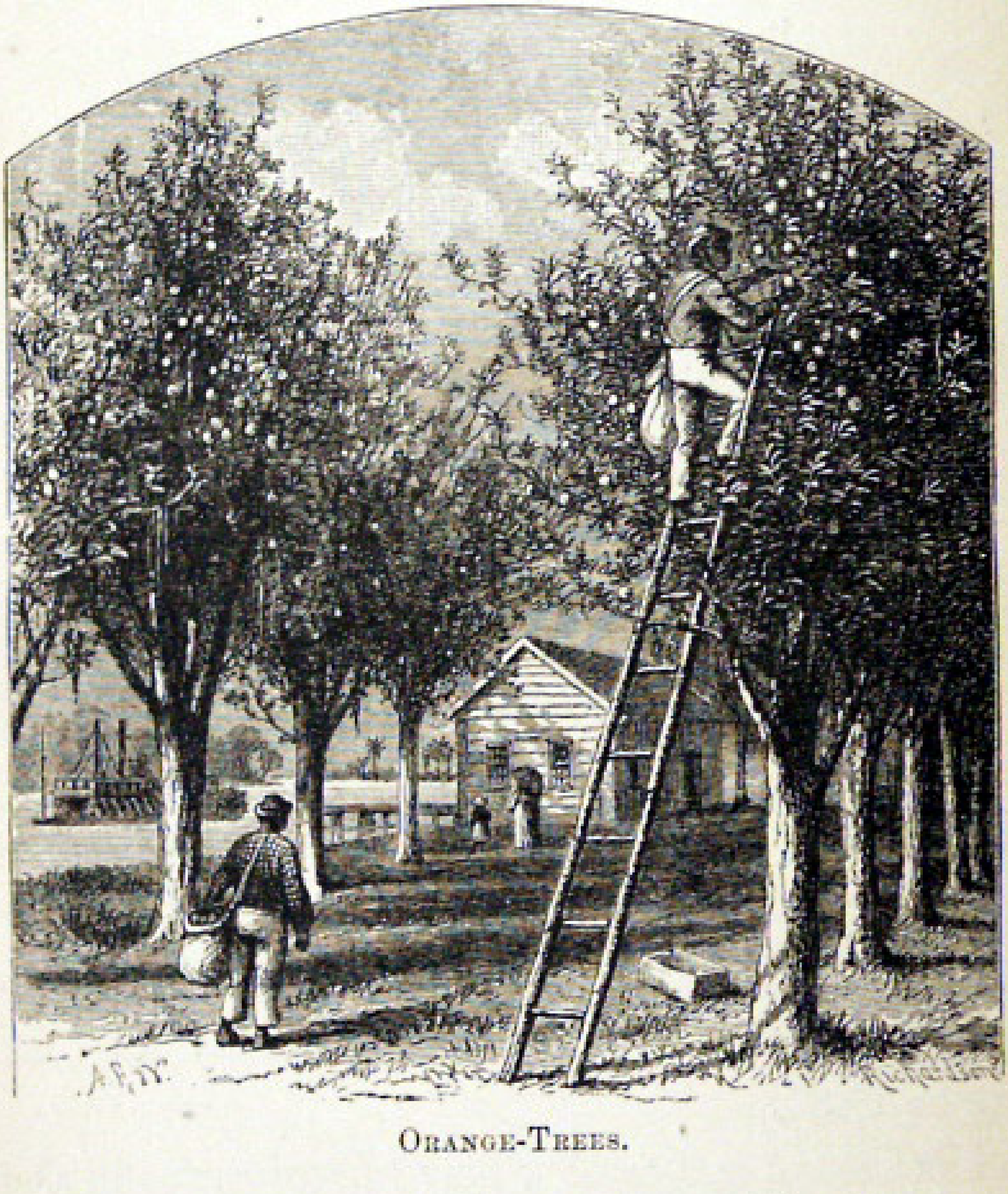
Prominent among these, and altogether the best advertised of all, is the growing of citrus fruits. Of these fruits there are six well-known kinds—the orange, lemon, lime, shaddock, grape-fruit, and citron. The statement has been made that there are two hundred and fifty varieties in all in the State; and nursery-men advertise about half that number.

Oranges.—The orange is by far the most important of these citrus fruits, and its culture has been longest before the public. It is stated that there are $10,000,000 invested in orange-groves, with room for five times that amount. The crop just gathered, according to actual returns of the transportation companies, aggregates 1,126,799 crates. The average price net has been about $1.62 a crate; the net value of the crop being, accordingly, $1,825,414. Upon this as a basis, it is safe to reckon the aggregate crop at 1,250,000 crates, and the net value at more than $2,000,000. The coming crop is estimated by Captain A. M. Ives, of the Florida Fruit Exchange, at from 2,000,000 to 2,500,000 crates, and no better authority than he can be cited.



ORANGE (*Citrus aurantium*).

The oldest and most widely known grove in the State, probably, is the Dummitt grove, on Indian River, near Canaveral. It was started about 1850, and has now some 3,000 trees. Near by, on the west shore, is the Spratt grove. The most productive and the largest bearing grove in the State, and probably in the world, is that of J. A. Harris, on Orange Lake, in Marion County, covering 185 acres, and having 30,000 bearing trees. The last crop from this grove was 32,000 crates, which sold for $65,000. It was stated that the crop of 1885–'86



ORANGE-TREES.

brought $90,000. Contiguous to this grove lie several important ones, aggregating about 500 acres, all being in or near bearing. One of these, owned by the Dunn Brothers, is valued at over $100,000. There are also the Matthews grove, the John Church and Company, and several others. This is doubtless one of the most important orange centers in the State. The younger grove of J. Hart Norris, at Spring Garden, Volusia County, 200 acres, in partial bearing, is also an important one. So is the Bishop grove. The Spear grove, near Sanford, Orange County, has only four and a half acres, but the trees are large—twenty-five or thirty years old—and the yield is from 10,000 to 15,000 crates a year. Near Sanford also is the Belair grove; and farther down the St. John's River is the Hart grove, which yields about $10,000 a year. All through these central counties, from the Atlantic to the Gulf, there are hundreds of valuable and rapidly advancing groves, altogether too numerous even to mention by name, much less in detail.

The claims, or pretensions, as the case may be, of different regions are very conflicting and confusing; but to one not interested in any way in the orange business it seems to be by general agreement settled—*outside* the Belt—that the Indian River region has some advantages over all others, and can grow and has grown the finest oranges in Florida, and "in Florida" means in the world. The St. John's region, however, and the interior counties lying west of that, are unquestionably doing a heavier business than the paradise along the ocean-coast is doing thus far. But all over the Orange Belt, and north of it in Northern Florida, and south of it in Subtropical Florida, the orange grows and thrives with more or less success, though its habitat is in Semi-tropical Florida—the Orange Belt proper. In Northern Florida, except along the water-protected Gulf coast—and occasionally there—there is considerable risk of losing crops by frost; and in the subtropics, lying south of the Orange Belt, the orange is crowded out by more profitable fruits of that climate, and it is possible that the bracing of winter is needed to bring the orange to its best.

As many as ten thousand oranges, it seems, have been gathered from a single tree in one year in several instances; one near Waldo in Alachua County, and one near Tampa in Hillsborough County. No tree, it is stated, dates back beyond the freeze of 1835. The backset given to this industry by the cold snap of 1886 operated but slightly and only for a time to arrest the enthusiasm in the business.

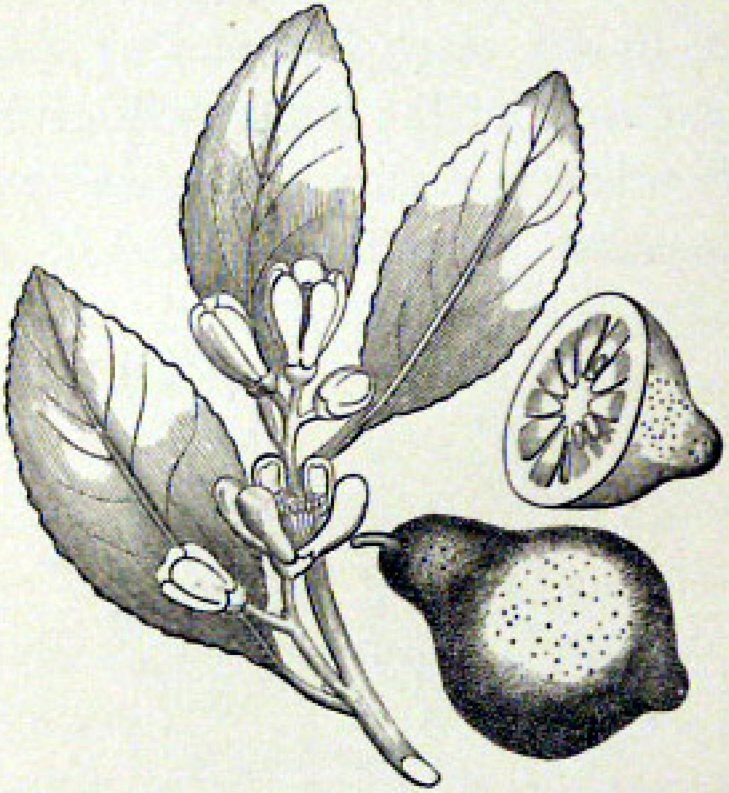
The cause for depression is already gone, as the large crop just gathered proves; that being the largest ever grown in the State.

As to California's claim to be the great orange-growing State, a few facts will show the emptiness of such claim. Professor Budd, of the Iowa Agricultural College, has recently examined that Pacific region; and he reports that in the entire State of California the area adapted to the production of oranges does not exceed 35,000 acres. Dr. Kenworthy has recently published the statement that the one county of Hillsborough in Florida contains fully 40,000 acres of land better adapted to the culture of oranges, lemons, limes, grape-fruit, shaddocks, and citrons, than the California lands above referred to; and that in the same county are *ten times* as many as 35,000 acres on which oranges may be successfully grown, without having to resort to the expense of some $15 an acre for irrigation. Now there are fully fifteen counties of Florida within the Orange Belt. If Hillsborough County has ten times as much orange-land as all California, and there are fourteen other counties in Florida's Orange Belt, the rivalry between California and Florida can not be very damaging to Florida. It is elsewhere shown that the *climate* of Florida suits the orange better than does that of California.

The varieties of the orange best suited to the various soils, climates, and cultures of Florida may be learned from the books on "Orange-Culture," mention of which is made elsewhere in these pages. Very positive preferences will be found there. The mandarin varieties deserve careful attention and trial, and some have been already approved by growers. The *kumquat*, also, or *Citrus Japonica*, seems to have qualities that commend it to the attention of the culturists of the Orange Belt.

Lemons.—The lemon stands in popular thought next to the orange, although not a great deal, comparatively, has been done in that direction in this country—this mainly, perhaps, on account of the inferiority of the earlier varieties planted. More recently the old Spanish rough-coated lemon has been giving place to better fruit. Five finer varieties have been tried, some with fair but none thus far with phenomenal success; but time promises the very best results. The Villa Franca, Belair Premium, and Genoa are the favorites of the imported kinds; and all are vastly superior to the old monstrosity of other days. The Sicily and the Eureka are earnestly advocated by some. But there are doubtless a score of varieties that will be found to do well.

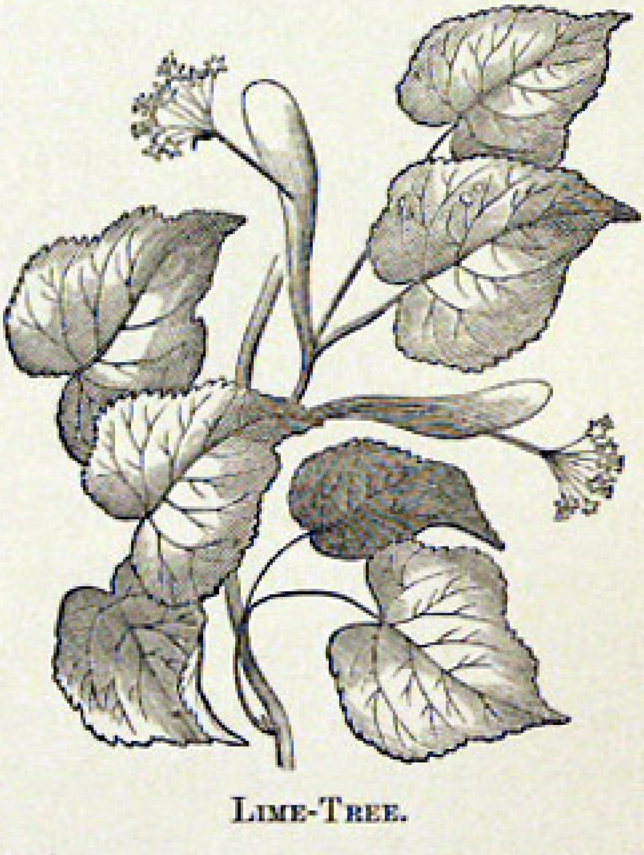
The lemon is a shade less hardy than the orange, and it can not be grown as far north as can that sister fruit. The southern half of the semi-tropics and all the region southward of it are well suited to the lemon; and, within that safe and limited area, it is a question if it be not the more profitable of the two in the future. The Villa Franca was but slightly if at all hurt near Sanford by the cold snap of 1886; while north of that, in all unprotected localities, there was more or less



LEMON.

damage done to the lemon-trees, though in general it was temporary.

Limes.—The lime seems destined to take the place of the lemon in many uses, but as yet it is not half so well known. The fact that its area of production is far more limited than that of the orange, and even of the lemon, will give it some advantage when it reaches its legitimate place in the fruit-market. It is the tenderest of the citrus family, and is confined pretty closely within the subtropical region, although several fine and successful trees have been grown as far north as 28° on the



LIME-TREE.

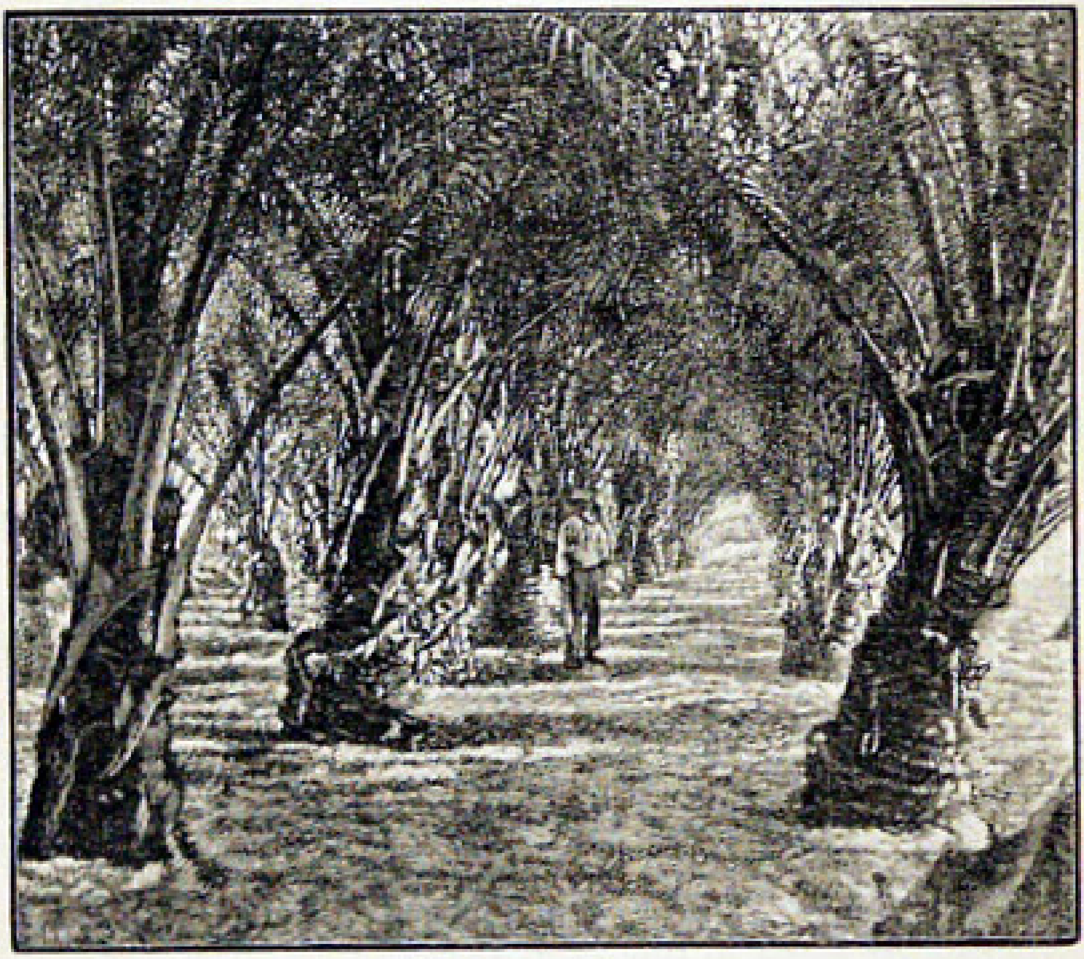
Gulf and 29° on the Atlantic side. The lime has not hitherto been grown for the obvious reason that its habitat has not been settled long enough yet. Anywhere north of the line just indicated, 28°–29°, the lime is very liable to damage from cold nearly every winter, the testimony of land agents to the contrary notwithstanding. The counties of Marion, Dade, and Lee embrace nearly all the territory available for safe lime-culture. The growing of this fruit has been thus far mainly experimental, very few acres having been planted anywhere and but little marketing done; but the success of a few individuals, in the region where the lime can grow, has been phenomenal, and prices realized correspondingly great. On Lake Worth, in Dade County, Captain E. N. Dimick has a lime-tree of the fruitage of which and the sales he has kept a careful and separate record and reckoning. The tree, of the variety known as the Mexican or Florida lime, was planted in 1877; and at the age of nine years—in 1886–'87—it bore more than 12,500 limes. These were sold in Jacksonville and yielded the handsome sum of $37.72 *net.* The tree is, of course, an exceptionally fine and favored one; but the results are important as indicating possibilities. The fruit matures nearly every month in the year.

The trees may be planted a hundred to the acre, or even closer, as they are much smaller, even in the subtropics, than the orange or the lemon. The fruit begins to appear in the third or fourth year from the seed. The Tahiti is the most tropical of the varieties now grown in Florida; but the Imperial and the Persian are preferred by some. Still, the common or Mexican lime, brought into the State by the Spaniards from Mexico, is for general economic purposes perhaps equal to the best. This variety grows well and is exceptionally free from the diseases so common in the citrus family. A sub-variety of this common kind, left on the east coast by the missionaries of the older days of the Spanish domination, known there to-day as the Mission lime, is the very best of the older kinds. The fruit of this is larger and of smoother peel. Profitable crops have been gathered in Dade County from trees five years old.

Other Citrus Fruits. — The other members of the citrus family are but little grown for sale; the grape-fruit being most often seen in our American markets, where, however, it is growing in favor. The shaddock also is rarely seen. This fruit has been known to measure twelve inches in diameter. The citron is still scarcer in the cities, except in the form of preserves. It grows on a tree the most irregular and shrubby of all the citrus tribe. All these grow well, along with the orange, in the semi-tropics, all being hardier than the lime and the lemon.

Valuable information and guidance, both practical and theoretical, on orange-growing especially and citrus-growing generally, are to be found in the books devoted to those subjects. All the essential points on these fruits—soils suitable for them, best varieties to cultivate, times to plant, diseases, drawbacks, fertilizers, and all that pertains to this fascinating and sometimes disappointing pursuit—may be found in the books: Moore's "Orange Culture in Florida," Mannville's "Orange Culture," Davis's "Orange Culture," Spaulding's "Orange Culture in California," Garey's "Orange Culture in California," Galesio "On the Orange," and Helen Harcourt's "Florida Fruits and how to raise them." These, and several others that the reader will readily find upon inquiry, will give all the help that can come from books; and, beyond that, practical experience is all-important.

Cocoanuts.—The cocoanut has been for several years now attracting attention in the subtropics. There are few chroniclers that have the hardihood to assert that it can live and fruit well anywhere north of that favored region. The only serious attempts to grow cocoanuts have been in Monroe, Dade, and Lee Counties; and in the northern part of this section—as at Jupiter Inlet, on the Atlantic coast, and south of the line 27°—the fruiting is not very satisfactory. On the Florida Keys in Monroe, on the coast of Dade, are the extensive groves of John Lowe, 1,500 trees, of which 500 are in bearing; of E. O. Locke, 25,000 trees, of which 100 are



COCOANUT GROVE.

in bearing; of Williams & Warren, 25,000 trees; and numerous others of from 1,400 up to 18,000, more or less in bearing. On the west coast of Monroe there are James A. Waddell's grove of 30,000 trees, and two or three other extensive groves. Settlers in the Caloosahatchee River region, in Lee County, are planting extensively; and gratifying results are confidently expected in the near future. James Evans, at Fort Myers, in that valley, has a number of sporadic now finely bearing trees about thirty years old. In Dade County there are at Lake Worth about 25,000 trees, the oldest planted in 1878, of which perhaps 2,500 are in bearing; and, south of that, Field & Osborne have planted, within the past four years, about 330,000 nuts.

Thus the aggregate number of trees in the three subtropical counties is something over half a million planted and probably living, of which may be 5,000 have reached the nut-bearing age or stage. The industry is a new one. The most productive trees are reported to bear 365 nuts a year; but 100 nuts a year to the tree is considered a good average for bearing trees, although 200 to the tree, as single trees, is not infrequent One writer estimates that $1,500 a year to the acre can be realized from cocoanuts.

There are two varieties of the cocoanut—the green and the yellow—found in Florida. They grow only near salt water and in the salt atmosphere. Limestone soils, coral sands, and mold hammocks, are all said to be favorable for these trees. They bear nuts at from seven to ten years under favorable circumstances. The oldest trees in the State were planted at Key West in Marion County, at Miami in Dade, and at Fort Myers in Lee, in or near 1845. There are trees in Key West nearly eighty feet high. Very little cultivation is thought to be required. A hundred trees to the acre is the usual spacing. If it is true, as is confidently claimed, that the cocoanut-palm (the *Cocos nucifera* of the botanists) will not endure frost, then its growing may be safely assumed as marking the frostless region; and, that point conceded, men need not bother, wrangle, and fleer about the frost-line, so called.

Pineapples.—This fruit will bear a little, but very little, more cold than the cocoanut; but, by means of special protection, pineapples may be grown, with moderate risk, up to the middle of the semi-tropics, the quality of the fruit being poorer the farther north. They have now been cultivated many years with fair success, though on a very limited scale, in the subtropics, especially upon the keys in Monroe County. The area is enlarging, and now embraces all Monroe, Dade, and Lee Counties. It is estimated that fully 500 acres are in cultivation at this time. The hardier and less valuable varieties have been grown in parts of Northern Florida, but, as a crop, they can not be grown there. In Semi-tropical Florida, especially in the southern half of it, south of 28° or 28° 30′, they can be grown with only an occasional killing by frost; but in the northern half of the Orange Belt protection of some sort is indispensable and the crop exceedingly uncertain, vaporing assertions to the contrary notwithstanding. They are doubtless, in their legitimate area, and under suitable conditions, one of the most paying crops in the State.

There are many varieties; but the one most commonly grown is called the Red Spanish, and this with proper cultivation in the extreme south is a most excellent fruit, and weighs ordinarily from two to four pounds, frequently going higher. Reasoner Brothers, in their "Catalogue," state that the following are synonyms of Red Spanish: Strawberry, Scarlet, Cuban, Havana, Key Largo, and Black Spanish. Pineapple-growers, however, are beginning to experiment with finer kinds, such as the Pernambucos, Porto Ricos, Cuban Garden Pines, Egyptian Queens, and others of the larger and finer varieties.

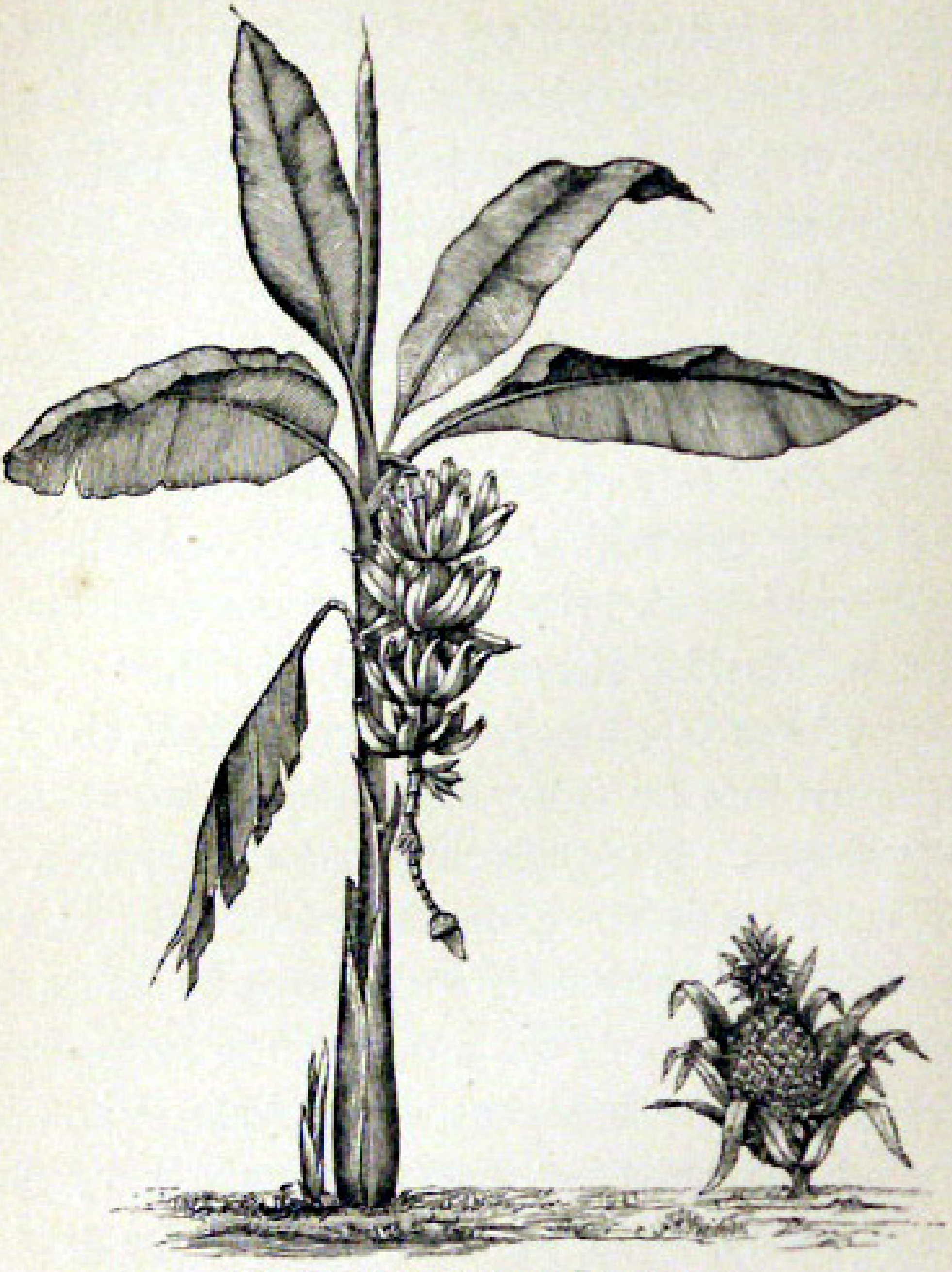
The Red Spanish may be planted from 10,000 to 12,000 plants to the acre. Growers expect to gather about seventy-five per cent of the plantings. Many gather less, and some get more. It depends largely upon the cultivation.

Sandy soil suits all kinds of pines best; and finer, tenderer, and more richly flavored fruit is grown on sand or sandy loam than anywhere else. They should be planted high and dry, and watered freely during drought. Suckers yield fruit frequently in one year, but the ordinary slip needs two years to fruit after setting out. With reasonable attention and skill an acre may yield $1,000 a year net; and with the finer varieties, when these have been successfully introduced, much larger profits may be reasonably expected. Florida can grow finer fruit and of better flavor and quality than most if not all other competitors in the American markets, for the reason that home-grown fruits may be allowed to ripen more fully, because the time of transportation is less; and fruit ripened thus naturally is vastly superior to that cut green and cured in transit or in the markets. And, further, the equatorial countries get their fruits into our markets during April, May, and June, after which they become scarce. Florida sends her pines to market in June, July, and August; so that, being later, they find a demand mainly after the tropical supply is exhausted. There need be no doubt that the tropics produce a fruit both larger and finer than the subtropics can hope to do. The Pernambuco pine, for example, whose habitat is within 10° of the equator, attains there a weight of eighteen or twenty pounds, according to some trustworthy authorities; whereas it is not to be hoped that more than half that weight, under present cultivation at least, can be achieved in our country.

It is not practicable to get full returns, or even trustworthy reckonings, of the latest crop of pineapples; but the area planted and the production are doubtless more than doubling every year. Mr. Richards, of Eden, on lower Indian River, near the northern boundary-line of the subtropics, reports that up to the first of July last there had been shipped from that point about 1,000 barrels or barrel-crates of pineapples. Mr. Knight, of Sebastian River—27° 48′—and Mr. Horsch are engaging somewhat largely in the raising of this fruit.

The European markets have been tried with very limited shipments of pines, and these mainly of the finer kinds. A prominent London firm of fruit-dealers publishes the fact that they have sold Florida pines at twenty-five shillings sterling—that is, over six dollars—apiece; but they do not mention the variety nor the size and weight of the fruit so sold. Another authority states that a pine weighing *fifteen pounds* was sold in that city for three pounds sterling, about fifteen dollars, or a dollar a pound!

Bananas.—The banana will grow in both the semi-tropics and the subtropics; but the surer crop and the finer fruit belong to the latter, as with all other tropical fruits. The kind most planted on the keys and on the east shore generally—and wherever winds are strong and frequent—is known as the *dwarf banana*, which stands from six to eight feet high. This is known to botanists as the *Musa Cavendishii.* The Reasoner Brothers consider this to be the same as the Chinese, called also *dwarf Jamaica* or *Martinique banana.* The yield of fruit is enormous, sometimes as many as two hundred or three hundred in a bunch, and the flavor excellent. Professor Whitner states that only the coarser variety known as *horse-banana* can be relied upon above the subtropical region. In this country the distinction between banana and plantain is kept up, the



THE BANANA AND THE PINEAPPLE.

latter being the coarser and hardier kind; but in India, pomoculturists have abandoned the name *banana* altogether, and treat all varieties of both under the name of *plantain*. Of bananas in Florida, there are two varieties, commonly known and called yellow and red respectively, from the color of the ripened fruit. The plantain, so called, is very rare.

The banana is propagated from bulbs and suckers; and these fruit the second year, never the first season.

Moist soils, very rich, suit the banana best, and frequent rotation — some Spanish authorities say every three years—is necessary; but higher lands yield fairly well with abundant rains; and very fine qualities, of limited size, have been grown on sandy loam, well molded and moist; but the richest of low hammocks are the best for this fruit. Still, the experiments thus far, as to soils, are by no means complete or final. The lands suitable for the banana as a crop of profit are quite limited in area, in the proper climate, and the crop is generally felt to be a rather risky one. From a thousand to twelve hundred to the acre is as close as the plants should be put out. Bananas are grown extensively by Mr. Baugh, on Sebastian River, in Brevard County.

The bananas grown in Dade County have sold, several years ago, on the ground, as high as a dollar a bunch; but about half of that is considered a very good price.

This fruit is very nutritious as food, and the poor in some tropical countries—notably the semi-savages of Mexico—it is said, make bananas a chief article of food. Humboldt is quoted as affirming that an area of land that would grow wheat enough to feed but one man would produce in bananas enough to feed twenty-five men.

Professor Whitner, in his "Gardening in Florida," gives the curious piece of information that the Spaniards at one time supposed the banana to be the original forbidden fruit mentioned in Genesis, and, from the fancied resemblance to a cross found in the marks on a transverse section, they claimed that in eating it Adam had a glimpse of the mystery of redemption by the cross.

Pears.—The Le Conte pear grows in great luxuriance in Northern Florida, throughout the splendid tier of counties between Jacksonville and Pensacola. Several other kinds—the Bartlett, Lawson, Japan, and some others—have been tried in the State, but none has found the conspicuous success of the Le Conte. This pear was introduced into Liberty County, Georgia, in 1856, by Major John Le Conte, who bought it, as Professor Whitner states, of some Northern nursery-man for a seedling of the Chinese sand-pear. It turned out, however, to be utterly unlike the Chinese fruit, and very appropriately received the name of its introducer, Le Conte.

Further cultivation and development by Captain Varnadoe, of Thomasville, Georgia, made this pear what it is to-day, the best pear in the South. It is a hybrid, and must therefore be propagated by cuttings or slips. The tree begins to bear fruit at four or five years of age, and at ten sometimes stands twenty feet high, and bears ten to fifteen bushels of pears. The orchard-spacing should allow nearly forty feet between the trees. The pears sell at from $2 to $5 a bushel-crate.

All along the line of railroad running westward from Jacksonville, and notably around Tallahassee, the visitor will be struck with the superb groves in all directions, rivaling both in picturesque beauty and prosaic profit the splendid orange-groves of the semi-tropics farther south. North Florida may well afford to forego the romance-invested orange-groves of the Orange Belt in view of these equally splendid Le Conte pear-groves.

Grapes and Wine.—The experiment of growing first-class grapes for wine has been made in Florida, and with complete success. Mr. E. Dubois, an experienced wine-grower from France, has made a careful, full, and systematic trial of the soil and climate of Northern Florida with wine-yielding grapes, and the very best results have rewarded him. He had prospected in several other parts of the United States before deciding upon his present place. In 1883 he began vineyards with a few acres in Leon County, near Tallahassee, and to-day has thirty acres planted in vines, mostly Cynthiana, Norton, Elvira, and Missouri Riesling. In 1887 he had ten acres in bearing, and gathered twenty tons of grapes and made 2,500 gallons of wine—claret, hock, Sauternes, and port — which to-day sells readily at from $1.25 to $2 a gallon. This year he will make at least 4,000 gallons. When the thirty acres reach the bearing stage, he can safely reckon on turning out from 8,000 to 10,000 gallons a year, and that means $12,000 or $15,000 a year.

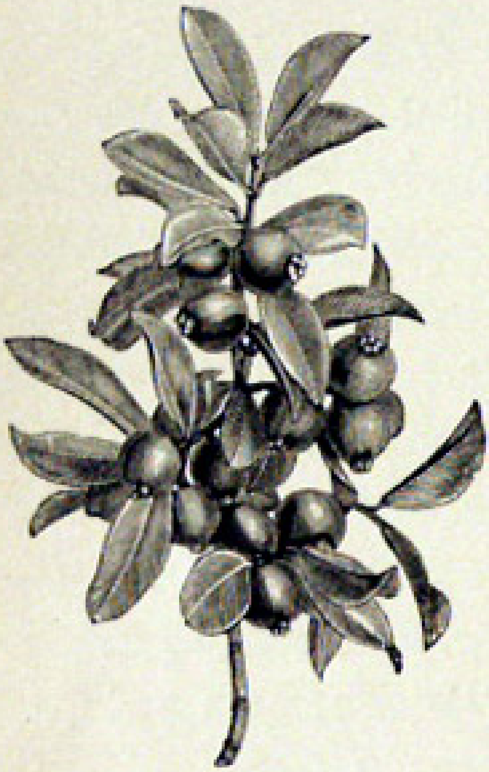
Less pronounced but still very satisfactory results were reached by the late Colonel M. Martin in Gadsden County twenty years ago. In 1869 this earlier experiment was begun. The vineyards still yield large crops of grapes—Hartford Prolific, Ives, Concord, Delaware, Martha, and Cynthiana—from which first-class wines are duly manufactured.

Besides the above-mentioned varieties, the Scuppernong and that family of grapes have been grown in various parts of the State with varying results. In the southern half of the State several of the grapes mentioned have been tried with entirely satisfactory results. Just which varieties will succeed in the subtropics has not been fully settled yet, but it seems certain that Northern Florida is better suited to the grape generally than the two more southern sections. Future efforts, however, may find varieties well suited to all sections.

Grand Possibilities.—There are many tropical fruits yet on trial, as it were, in Subtropical Florida, of which the future is more or less undefined and undeterminable at present, but which may be defined as *grand possibilities.*

Prominent among these possibilities are these: the guava, mango, mangosteen, mammee, mammee sapota, sapodilla, and most of the large *Anona* family. These fruits, all fine in their separate ways, are grown with perfect success perhaps only in the tropics, and they are well known to books and travelers. They are now on trial in Subtropical Florida, and a few of them have attained success. They are of course but little known, except by name, beyond the subtropics, on account of the impossibility of getting them to market in good condition with existing means of transportation. They are mainly saccharine-acid fruits, and need to ripen on the stem in order to develop their best qualities. Hence, there is not time after gathering to reach distant markets. Even railroads could not get them to Northern markets, for the reason that the agitation of the rail movement would, as in the case of new sugar, cause the fruit to decay rapidly by deliquescence or some similar process, unless the temperature be kept too low for that destructive process. What is wanted, accordingly, is either the refrigerator-car, or water-movement by steam, without transshipment between the producing groves and the consuming markets. With either of these—and of these the refrigerator seems by far the better, but experiments must decide their relative merits—most, if not all, of these delicious fruits can be put, in excellent condition, into the Northern and possibly into the British markets.

The *guava* is widely known through its jelly, so deservedly popular; but the fruit itself is little known beyond its habitat. The common guava grows easily and abundantly, reaching fully twenty feet in height sometimes, all through the subtropic counties, and in fact will live and bear fruit in both the subtropics and the semi-tropics; but Nature's rule is inflexible—the farther north it is planted the more uncertain is its growth, the smaller the tree or shrub, and the scarcer and poorer the fruit. Its success in Monroe, Dade, and Lee is not at all problematical. There it ripens some seven or eight months in the year, from May till January, say, but most abundantly in summer.

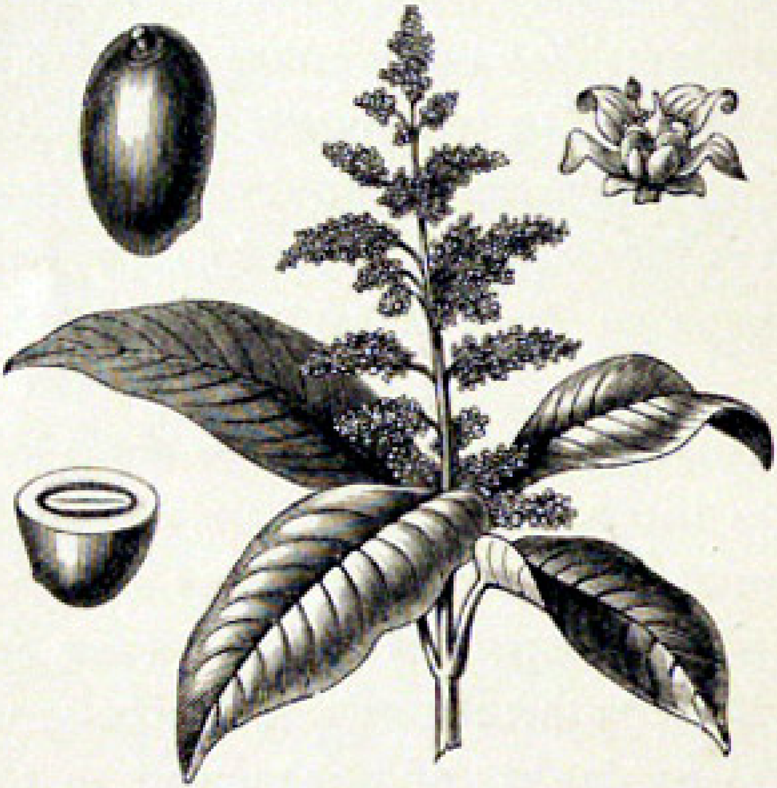


GUAVA.

Two varieties are quite common, and are called the sweet and the sour or acid. The former is the kind most commonly eaten, while the latter alone will make jelly of the first quality, unassisted with culinary aids. The shape is that known as *maliforme*, although it is more nearly that of a lemon than of an apple. It is of this guava—the *Psidium guayava*—that the Reasoner Brothers say: "The guava has become a necessity to South Florida; is to South Florida what the peach is to Georgia." The Cattley guava was introduced from China by an Englishman who gave it his name. This is more hardy than the common, is more a shrub, and will stand the semi-tropical climate doubtless very well, although it has not been yet very thoroughly tested.

The *mango* has been tried with a measure of success in the extreme south; and as far north as the mouth of Tampa Bay—not far from 28°—it is reported to have done well, but even there it is risky. One tree of the apricot variety in that region, owned by Mr. Neeld, of Pinellas, at eight years old bore 8,000 mangos one year. The freeze of 1886 proves that this is rather far north for this tropical fruit. The tree usually bears fruit in five or six years from the seed. There are two kinds planted in Florida, and it is yet on the experimental list, except on the extreme south coast and the keys.

Firminger, writing of the large Malda mango in India, its habitat, says, "To those who have never partaken of it, no words can convey an idea of this exquisitely luscious fruit"; and another appreciative writer says that the pulp of the choice varieties is of the consistency of blanc-mange, so as to be eaten with a spoon, and rivaling if not excelling any fruit in the world for deliciousness of flavor. This is what Northern consumers may hope to get should the growing and transportation prove a success in Florida; and it contrasts sharply with the pitiful greenish, shriveled, turpentine-flavored little mangos sometimes, but luckily not often, found in Northern markets. The mango is often as large as a goose-egg. The Reasoner Brothers say: "We can not speak too highly of this delectable fruit, destined, we hope, to become as plentiful in South Florida as the orange. In productiveness and rapidity of growth it surpasses any fruit-tree we have ever seen,



MANGO.

either temperate or tropical. Some trees in Central America—latitude about 16°—are described as having trunks four feet in diameter, the trees standing sixty feet apart, and yet the branches touch." In the subtropics, of course, these tropical trees fall correspondingly short of such proportions; but Florida can already boast several well-grown trees. The Guatemala mango in Florida ripens as early as March, but the regular season is later than that. Of the Cuban varieties an excellent authority considers the lobed apple the best. The subtropical nurserymen offer twelve varieties, and all of these will in due time be fully tested. Lots of Florida-grown mangos have sold at forty cents a dozen. Trees should have about thirty feet space ordinarily. They do best in high, well-drained land.

The *mangosteen*, it is claimed, has been tried with success in the extreme south, but there is doubt as to the genuineness of the variety. The true mangosteen—the *Garcinia mangostana*—is being planted in Monroe and Dade Counties, and a few years more will decide; and many persons have large faith in the success. The fruit is probably superior to the mango, which is praised so enthusiastically by tropical writers, and is about the size of an orange.

The *mammee* is a handsome tree, somewhat like the *Magnolia grandiflora.* Its success in Subtropical Florida is well assured, having been grown some years on the keys. How far up it can grow remains to be proved, but the probabilities are against it above the subtropics. The fruit—sometimes called the mammee-apple, and among the Spaniards known as the *mamey*—is round and brown, three to six inches in diameter, containing one to four seeds, as large as walnuts, surrounded by a yellow, juicy pulp, most delicious, and needing no acquired taste to be enjoyed. The taste is not unlike the apricot or summer peach. The tree is a native of the Caribbee Islands, and in Jamaica is said to be one of the largest and most valuable timber-trees.

The *mammee sapota* is remotely like the mammee, but is different in most respects. The fruit of this is oval, its longest diameter from three to six inches. It has one large, long seed in the center. The pulp is of a rich saffron-color and is described in terms of extravagant praise; it is called natural marmalade, from its resemblance to marmalade of quinces. The tree is known in some localities as the marmalade-tree. It is the *Achras mammosa*, and is native in Central America. It is reported to have fruited successfully on the southern keys; but more time is needed to confirm the probability that it will succeed in Florida.

The *avocado pear*—corrupted into *alligator pear*, and by the Spaniards popularly called the *aguacate*—is a native of the West Indies, and has been successfully grown a number of years in Subtropical Florida. It is pear-shaped, and from that alone appears to have received its misnomer of pear. Tropical-sea sailors call it midshipman's butter. The tree is known to botanists as the *Persea gratissima.* The taste for the fruit is generally an acquired one; but, as in the case of most such fruits, the partiality for it is intense. It is a stone-fruit, large, greenish-brown in color, with pulp of a bright yellow color, and taste unique and of decided character. The tree is propagated from the seed, and will usually fruit in about five years from the planting. The freeze of 1886 interfered with the trees down to the boundary-line of the subtropics proper. It may be planted with safety anywhere within that subdivision.

The *sapodilla* is a native of Jamaica, and grows well on the Florida Keys and on the adjacent mainland; that is, in the subtropics. It is the *Achras sapota*, and is called by the Spaniards *sapote.* It is a handsome tree, and is propagated from the seed, fruiting in six or seven years from the planting. The fruit is round, rusty brown, two or three inches in diameter, the taste being that of a rich, sweet, juicy pear, with granulated pulp and almond-shaped seed. The quality of the fruit is very high, equal perhaps to that of the mango; and it is preferred by many to that fruit. It is very hard to transport, from the fact that it needs to ripen on the stem in order to be at its best. The 1886 freeze proved that the sapodilla can not be safely grown anywhere north of the subtropical strip. It thrives at Lake Worth in Dade—latitude 26° 40′—and was not hurt by the cold of 1886.

Of the numerous family of the *Anonas* four appear to have proved eminently successful in Subtropical Florida, and some of them well up into the semi-tropical region. The four are the guanabena, cherimoya, sugar-apple, and custard-apple.

The *guanabena*, popularly called sour-sop, is the *Anona muricata*, a native of the West Indies. The fruit is described by the Reasoner Brothers as "a large, green, prickly fruit, six or eight inches long, containing a soft, white, juicy pulp, which in fresh, well-ripened specimens is delicious." Mr. Gosse says it is "lusciously sweet and of a delightful acidity; often larger than a child's head; covered with prickles." It is the tenderest of the *Anonas*, and can live only in the extreme southern rim of Florida and on the keys. The fruit sometimes weighs four pounds, and retails in the Key West fruit-stores at sixty cents each.

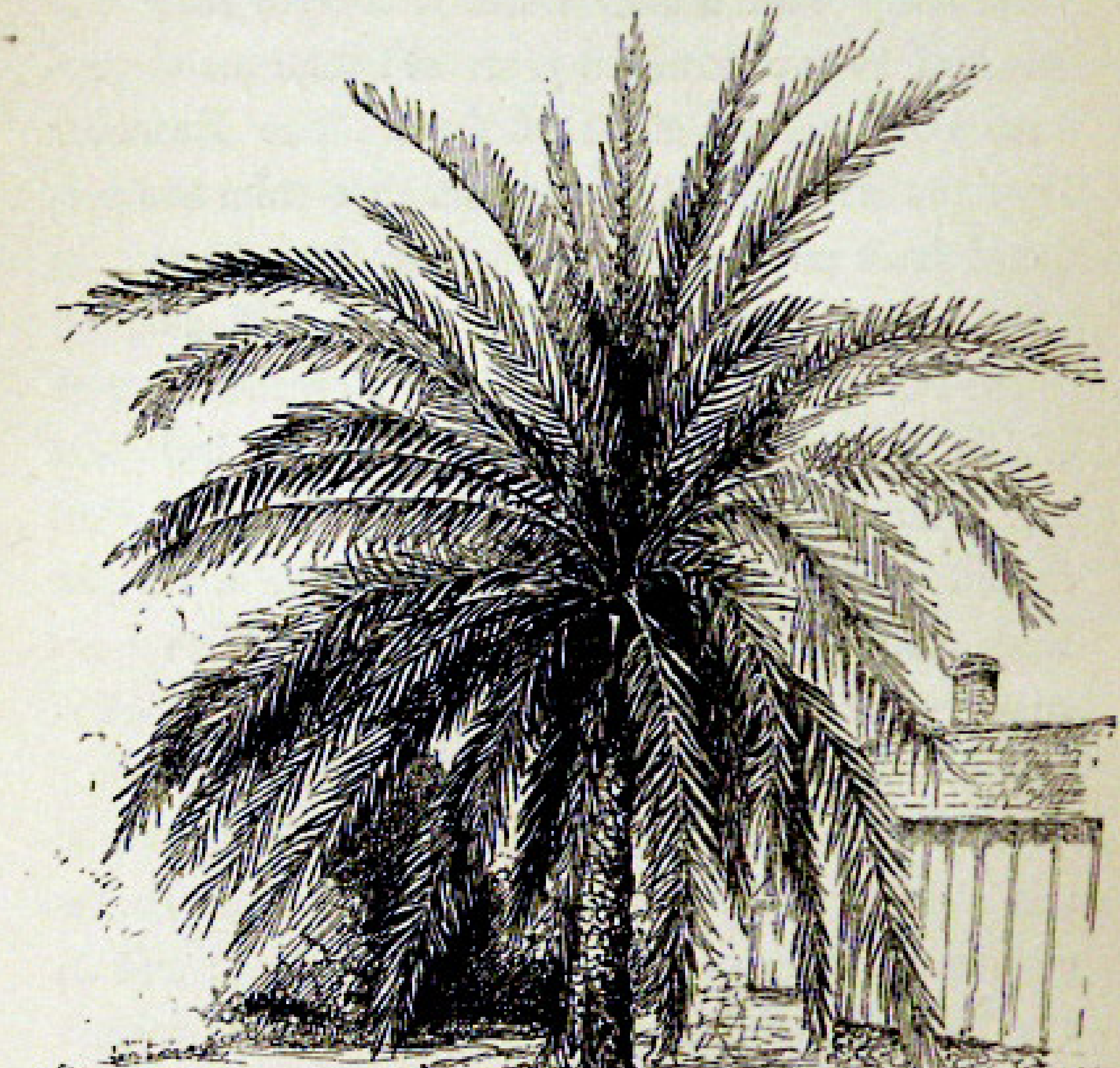
The *cherimoya* is the *Anona cherimolia*, and in Key West is frequently called the Jamaica apple, and sometimes *cherimoyer.* The fruit varies in size from that of an orange to six inches in diameter. It is a native of Peru. It will thrive only in the subtropics. Dr. Seemann, as quoted by Professor Whitner, says: "The pineapple, the mangosteen, and the cherimoya are considered the finest fruits in the world. I have tasted them in those localities in which they are supposed to attain their highest perfection — the pineapple in Guayaquil, the mangosteen in the Indian Archipelago, and the cherimoya on the slopes of the Andes—and if I were called upon to act the part of Paris, I would without hesitation assign the apple to the cherimoya. Its taste, indeed, surpasses that of every other fruit, and Haenke was right when he called it the masterpiece of Nature."

The *sugar-apple* is known to some as the *sweetsop*, and to others as the *bullock's heart.* Professor Whitner calls it the *Anona reticulata*, while the Reasoner Brothers catalogue it as the *Anona squamosa.* It is much grown in Key West, and has found its way into subtropical regions generally. The tree is a shrub frequently, of very large size generally in the extreme south, but smaller farther north. Professor Whitner says the fruit looks much as a raspberry would of the same size, with its depressions as if quilted. It sometimes grows to be as large as a man's two fists, and is of a dark-brown color. The pulp is of a reddish-yellow color, about the consistence of custard, and exceedingly sweet; some think it *too* sweet. It is the most difficult of all these fruits to transport; and refrigeration is perhaps the only way in which they can ever be got to the markets of the outside world.

The *custard-apple*—the *Anona reticulata*—is not to be confounded with the *A. glabra*, or the wild *pond-apple* of South Florida. The former is a fine fruit, while the latter is utterly worthless. The true *custard-apple* is larger than an apple, or nearly as large as an orange. In India it is prized very highly and cultivated with care; and for experiment care should be taken to get the true fruit.

Yet other Fruits.—Besides the above-mentioned, there are a good many others that are on trial in Florida, many of them with reasonable chances of success. Of these, some have a much larger area than this State; some are too tropical to stand its climate; and some are of questionable utility.

The *date-palm* is a stately tree, handsome, Oriental, and reaches, under the most favorable circumstances, about eighty feet. It is equal in landscape effects to the cocoanut. It is the *Phœnix dactylifera* of the botanists, and bears fruit in about eight years. The matured tree is said to yield from three hundred to five hundred pounds of fruit



THE DATE-PALM.

a year. There are date-palms in the monastic garden of Bordighera, Italy, said to be over a thousand years old. Von Müller states that trees from one hundred to two hundred years old continue to produce their annual crops of fruit. The Reasoner Brothers write that this common date-palm has produced fruit on Cumberland Island, Georgia, and in St. Augustine for many years, and is well adapted to the soil of Florida. It ordinarily reaches the age of ten to twenty years before producing fruit, but rare instances are known of trees producing fruit at three to four years. Some trees on Lake Worth, in Dade County, bore fruit at seven years. The market value of the date in Florida is yet to be determined. The family of palms is a numerous one.

The *tamarind* is from both India and Africa, and is raised easily from seed. The Reasoner Brothers consider it more hardy than the guava; and in Key West it is a common street tree. It has foliage like the acacia, the fruit being a legume or pod inclosing a pleasant acid pulp and the seeds. The pulp is excellent for preserves, cooling drinks, and medicine, being rich in formic and butyric acid, and is pleasant to eat as fruit. The tree sometimes attains the height of eighty feet; and one tree over a foot in diameter near Manatee, in Manatee County

—about 27° 30′, Gulf side—was killed by the freeze of 1886.

The *pomegranate*—the *Punica granatum* doubtless—is about the size of a peach-tree. The fruit of the sweet variety is pleasant to eat, while the sour is more commonly used in making cooling acid drinks. The newly imported variety known as the Spanish Ruby is said to be the finest of all the *Punicas.* One writer says, "Of all the fruits we have ever tasted in our temperate climate, the Spanish Ruby pomegranate and the Adriatic fig are the two finest." This is a good grower and bountiful bearer; and the fruit ships well, ripening in December. It will doubtless do well all over Florida.

The *Spanish lime* is not of the citrus family at all, but is the *Melicocca bijuga;* and the Spaniards call it *momoncillo.* The tree grows to the height of about thirty feet in the West Indies, and would do well, no doubt, in Subtropical Florida, but not north of that region. The fruit is like a plum, yellow, with pleasant pulp and central seed; and the seed is edible, somewhat like a chestnut. The tree is hard to make live, and at first grows very slowly.

The *loquat*—the *Eriobotrya japonica*, said by some to be the same as the *Mespilus japonica*—

grows to be about fifteen feet high. It will grow in all parts of Florida, though in some places it does but moderately well as a fruit-bearer. It grows readily from the seed. The fruit is in clusters, and is about the size of a plum, with a thick skin of a dull reddish color. The leaf is tough, lanceolate, having a bright-green top and a brownish velvety under side. It is sometimes called the *Japan medlar.*

The *Japan persimmon*, or *date-plum*, is the *Diospyros kaki*, and is grown in all parts of Florida. The tree bears fruit frequently at one year of age. The fruit is about two inches in diameter, and has the general appearance of a smooth tomato, being of a bright-red color, delicious taste, and ripens in the autumn. The stone in the center is somewhat like an almond. The tree is best propagated by budding or grafting. The tree has been successfully grown now so many years that its stand is well assured.

The *akee* is a native of Africa. Botanists know it as the *Blighia sapida.* In Africa and India it seems to be a large tree, but in Florida rarely gets above ten feet in height. One writer describes the fruit as of the size and form of a small lemon, somewhat ribbed, and, when ripe, of a beautiful vermilion color. In the West Indies, where it grows well, it ranks with the nectarine in quality of fruit. In Jamaica it is used as a vegetable, and cooked by parboiling and frying; and, thus prepared, is popularly known as vegetable marrow.

Bread-fruit is a blundering name applied by the ignorant to perhaps half a dozen different and distinct fruits. Professor Whitner thinks the *Artocarpus incisus* of the Pacific islands entitled to the name. Kingsley describes the tree in these words: "That awkward-boughed tree, with huge green fruit and deeply cut leaves, one foot or more across, is a bread-fruit tree." The fruit is oval, sometimes eight inches in diameter. There are no seeds, and the farinaceous pulp may be eaten fresh, when it "resembles bread made with eggs." When fully ripe it becomes sweet and resembles clammy cake. An Englishman writing from India says that sliced and fried it seemed to him hardly distinguishable from excellent batter-pudding. Hartwig informs his readers that there are whole islands in Polynesia that depend for food upon this bountiful bearer of fruit-vegetables for several months in the year. In Honduras the leaves are said to be by actual measurement two feet wide by three in length. In Florida this wonderful tree, with its more wonderful fruit, has not yet been grown with full success; but nursery-men are offering it for sale, and experiments now in progress will assuredly settle the question within the next few years. It is, however, useless to spend time with experimenting above the southern subtropics.

Cacao was so highly esteemed by Linnæus that he gave it the striking name of *Theobroma*—food for a god. The Mexicans call it *chocolat*, whence the English word *chocolate.* It is found in most tropical countries; and Professor Whitner holds that it is highly probable that it will succeed in the subtropics of Florida. The "American Cyclopædia" describes the *cacao* as an evergreen, producing fruit and flowers throughout the year. If unchecked it attains a height of about thirty feet, and resembles in size and shape a black-heart cherry-tree. The leaves are smooth and oblong, terminating in a sharp point. The fruit resembles a short, thick cucumber, five or six inches long, and three and a half inches in diameter. It contains from twenty to forty beans. These are arranged in a pulp of a pinkish-white color, in five rows. Their size is about that of a sweet almond, but thicker. In Central America the fruit is much larger, being from seven to nine inches in length and three to four inches in diameter, and contains from forty to fifty seeds. In the West India Islands and in Demerara it is so small as to contain only from six to fifteen seeds. The rind of the fruit is smooth, thick, tough, and tasteless. The pulp which incloses the bean is a sweet, slightly acid substance, something like that of the water-melon, and is used for food. The fruit matures in June and December. The beans when separated from the pulp and dried in the sun are ready for market. The shell is of a dark-brown color, and furnishes the cocoa-shells of commerce. The seeds yield by expression an oil that is very nutritious, and acts as an anodyne. All the cacao-land in Florida lies, doubtless, in Monroe County.

The *durian* is a native of the Malay peninsula, and in its habitat grows to be eighty feet high; and it is very doubtful if it can be successfully grown anywhere in Florida, although some have faith in the experiments now making with it. The fruit is oval in shape, and ten inches in its longest diameter. It has a thick rind, covered with strong and hard prickles. It is divided into five cells, each containing from one to four seeds, as large as a pigeon's egg; and surrounding these is the edible pulp, which is delicious, and of a cream-color. A full-bearing tree will produce two hundred durians a year. It is propagated from seed.

The *jack-fruit*, or *yack-fruit*, known to botanists as the *Artocarpus integrifolius*, is from India; and its success even in extreme South Florida is by no means yet assured. Firminger, speaking of this fruit, calls it "one of the largest in existence, and an ill-shapen, somewhat oval-formed, unattractive-looking fruit. The interior is of a soft, fibrous consistency, with the edible portions scattered here and there. By those who can manage to eat it, it is considered most delicious, possessing the rich, spicy scent and flavor of the melon, but to such a powerful degree as to be quite unbearable to those unaccustomed to it." The situation of the fruit is said to vary with the age of the tree, being first borne on the branches, then on the trunk, and in old trees on the roots. Those borne on the roots, which discover themselves by the cracking of the earth above them, are held in highest estimation.

The *kuronda*, which is the *Carissa carandas*, is somewhat like the damson-plum. The tree is small, and the fruit contains a number of small seeds. The fruit in India, the habitat of the tree, matures in August and September. It has not been tried in Florida, and some hope for its success there.

The *lichee—Nephelium lichi*—is an East India tree, and fruit-growers in South Subtropical Florida mean to give it a trial there. The fruit is of the size of a large plum, and grows on a shrub. It is a spring fruit, ripening in May. One admiring writer says of the pulp of the lichee that it is "as delicious, perhaps, as that of any fruit in existence," and resembles the white of a plover's egg, containing a stone in the center. The tree is propagated from the seed.

The *papaw*, botanically called *Carica papaya*, grows well generally throughout Subtropical Florida, but does not rank as a first-class fruit. The wild variety, indigenous in the State, is not to be confounded with the finer variety grown for its fruit. The stalk—it is not a tree—attains the height of twenty-five feet at its best and in the extreme south, but it often bears good fruit when less than ten feet high. It has no branches, but a crown of leaves, among which the papaws grow. The fruit is a good deal like a musk-melon, with a diameter of from three to six inches, ribbed on the outside, of a dull orange color, having a rind thick and fleshy, with a mass of black seeds inside. It is eaten raw, and tastes remotely like a musk-melon. The stalk, Professor Whitner states, "abounds with a milky, bitter juice, which contains *fibrin*, a principle which, with this sole known exception, belongs to the animal kingdom. A few drops of this juice mixed with water will in a few minutes, it is said, render tough meat very tender. The same effect is produced by wrapping the meat up in a leaf and keeping it so overnight."

The *nutmeg* has not been fully tried in Florida, but many believe that it will do well there. It is the *Myristica fragrans;* and the tree grows to the height of twenty or thirty feet, and looks something like a pear-tree. The leaves are five or six inches long and pointed, in color of a deep, dark green. The fruit is described as pear-shaped, about the size of a peach, consisting of a fleshy pericarp, which on ripening breaks open into two nearly equal valves, exposing the seed and its appendages. This exterior part of the fruit is about an inch thick, yellowish brown, with an astringent juice. In collecting the crop this is thrown away. The tree bears in eight years from the seed, reaches its full bearing in fifteen years, and will continue bearing about eighty. The average yield of a tree is five pounds of nutmegs and one pound and a half of mace—the substance enveloping the seed.

Coffee—the Coffea Arabica—is recommended by Professor Whitner for trial in Southern Florida. It was planted several years ago on the Manatee River by Mrs. Atzeroth, and on Lake Worth by Mr. Spencer. The former shrubs were killed to the ground by the freeze of 1886, but have sprouted up again. The latter were not hurt by the same freeze. Both plantings have yielded fruit —or berries—but they have not taken coffee from the list of *not-demonstrated* productive crops for Florida. It is propagated from the seed. The fruit when ripe is red and resembles a cherry, and the flesh surrounding the two seeds is sweetish and rather palatable.

Tea has been grown in North Florida for a good many years. It will grow in several of the Southern States.

There remain to be mentioned yet others:

The *olive*, which is on trial and is expected to succeed.

The *fig*, which grows and fruits in great luxuriance in all parts of the State, but notably in the northern tier of counties.

The *peach*, which does well in Northern Florida, especially the *Peen-To* and *Honey*, which will probably do well all over the State—2,000 crates shipped from Waldo this year.

The *quince*, some varieties of which, especially the *Chinese* and the *orange*, do well.

The *apple*, a few varieties of which have proved measurably successful in Northern Florida; and,

The *jujube*—the *Zizyphus jujuba*—a wholesome fruit from India, which ought to be tried more thoroughly than has yet been done.

In addition to all these there are the nuts, many of which have a degree of commercial importance. Among these are the pecan, the almond, and the pistachio-nut.

The *pecan* has been grown successfully now several years in Northern Florida, and is on trial in both the other sections; and in a few years doubtless it will appear that it will thrive in all parts of the State. It is the *Carya olivæformis*, the best and most prolific variety of which, for Florida cultivation, seems to be the *large Texas;* but the *paper-shell* meets the wishes of many. The tree is a large, handsome one, and wants a rich, well-drained soil.

The *almond*—given by the Reasoner Brothers as the *Terminalia catappa*—is common in Key West and on some of the other keys adjacent. A few good specimens have been grown as far north as Manatee and Lake Worth, and they promise well.

The *pistachio-nut* is the *Pistachia vera*, which grows in England in sheltered places and in favorable portions of France; which ought to do well in the Southern States generally and especially in Northern Florida. The tree is twenty to thirty feet high when well grown, the fruit being a stone-fruit or drupe about the size of an olive. The seed or nut is about an inch long, of a greenish color when fresh.

The *strawberry* may not be more prolific and fine in Florida than in some other States, but the fact that it matures there earlier than anywhere farther north makes it an important article among the fruit productions of that State. The most profitable results can be got by strawberry-culture in the subtropics, for the reason that the berries can be ripened there before those from higher latitudes can reach the markets. The subtropical fruit can be put into the New York market fully a month earlier than can that from the northern parts of the State; but, at the same time, fewer varieties will thrive in the extreme south. Subsoil irrigation is destined to work important changes in this crop. At Daytona, in Volusia County, on the Atlantic coast—latitude 29° 10′—this irrigation has been tried with phenomenal success; and the indications are that in this way all the drawbacks in the south can be overcome, and the berries grown and matured at the will of the grower—in December as well as in February. With present appliances, strawberries can be gathered in January, anywhere in the subtropics, and a fortnight to a month later in the higher regions. Subsoil irrigation can make both appreciably earlier, maturing the very earliest for market in December if desired. All kinds of the berry, it seems, do well in the northern tier of counties. For the extreme south horticulturists recommend the Nunan or Charleston Seedling, and perhaps the Bidwell, as least likely to burn. On the St. John's River a common return is about 2,000 quarts to the acre, while in Clay and Gadsden yields of from 6,000 to 8,000 quarts to the acre have been reported. Strawberries have frequently sold for $2.50 a quart in New York in winter, and in early spring for $1 a quart. From Mandarin on the St. John's last year there were shipped North 50,000 quarts, and these sold at from $2 to 20 cents a quart, the *net* average of the whole being 25 cents a quart.

Tobacco. — This crop has for many years—in fact, ever since its beginning in 1829—claimed a fair measure of public attention; but in the last few years a great deal has been done in this direction. In 1850 the tobacco crop was 998,614 pounds, the greater part of which was grown in Gadsden County. The crop increased gradually until the war, and then fell off rapidly, and remained very small until the incubus of reconstruction was lifted from the State in 1876, since which time a quickening of this industry with most others has set in. The "Florida Tobacco Plant" predicts that the present year's planting will be 4,000 acres, and that the crop will be probably between 1,000,000 and 1,500,000 pounds of the finest tobacco—this mostly in Gadsden, Columbia, Leon, and Suwannee Counties, Gadsden still ahead of all others. A prominent business man now engaged in tobacco-culture predicts that there will be in a few years 100,000 acres planted.

A company has been formed recently—the Florida Tobacco Producing and Trading Company—and its agents have bought lands in Gadsden County. They planted last spring a thousand acres, putting out about six million tobacco-plants. Some of the varieties planted yield 600 pounds of fine tobacco to the acre, and others will yield from 1,000 to 1,500 pounds.

Another enterprise is starting in Columbia

County. A Mr. F. A. Gonzalez has been three or four years engaged in growing fine tobaccos there, and decides that Florida is better than Cuba for the business. The experts with their families are expected soon to occupy the place. Beyond doubt there are fortunes in this business, especially thus conducted by experts in all its branches. These men have all the advantages of generations of skilled business men—men equal to those cultivating the famous Vuelto Abajo district in Cuba, who bid fair to transfer the fame of that favored region to Northern Florida. Cuba has proved herself, as a tobacco-producing land, equal to Sumatra; and now Florida bids fair to snatch the crown from both. Mr. Gonzalez has been offered sixty cents a pound for the tobacco just grown, but declines to sell, and proposes to manufacture it.

The soils in Florida especially suited to tobacco are comparatively limited in area, however; and this fact must be kept in mind.

The phenomenally large yield of fine tobacco in Florida is the best assurance that that is a vitally important field for revenue. The average yield is over 500 pounds to the acre, and 1,500 pounds to the acre is counted as possible. More than this figure has been grown in Florida. Now, when 600 pounds of tobacco, worth from forty to sixty cents a pound, can be grown as an average crop, surely a grand future is before the tobacco-culturist.

The manufacture of tobacco in Florida is an industry well established and developing with remarkable speed. The climate is exceptionally well adapted to cigar-making. There are now between 200 and 300 cigar-factories in Florida, nearly all using Cuban leaf; but when Florida can grow the leaf as well as manufacture it, the profits will be vastly increased. The number of cigars now manufactured in the State is just 87,204,335.

Recent experiments in Dade and Lee Counties prove beyond question that the extreme south is very well adapted to this industry. One writer claims that in these counties 1,200 pounds to the acre can be produced.

It is obvious, accordingly, that the above facts and considerations show that both Northern Florida and the extreme south are well, and equally well, suited to the growing of first-quality tobacco; prove beyond all reasonable doubt that the whole State is admirably adapted to the cultivation of the weed.

There are claimed to be nearly 200 factories in Key West, employing 3,000 operatives, and doing a business of $5,000,000 a year. Some experts are said to make $200 a month. The amount disbursed by the factories alone is given as $2,500,000 a year.

Cotton.—Among the productions of the State, cotton ranks second, lumber being first in value. The cotton is both long-staple or sea-island, and short-staple or upland. The former is by far the more important.

Of this long-staple, the Florida crop of 1887 was 30,991 bags, while that of Georgia was 6,411, and that of South Carolina was 7,735; an aggregate American crop of 45,137 bags. These are the estimates of Alexander & Co., and show that Florida produces more than two thirds of the American crop. The bag weighs about 350 pounds. Texas at one time tried the crop, but gave it up, leaving now but the three States named producing this cotton. The main markets for the long-staple are Savannah and Charleston. At the close of the war Great Britain manufactured practically all the crop; but to-day the American mills spin nearly a half of it; that is, 20,515 bags against 25,216. Florida could easily double its present crop if the means and resources were properly directed. A large manufactory established at home—and such a one is under consideration by practical business men—would speedily develop this maximum capacity, and at the same time enhance the prices of the material.

The short-staple or upland cotton of Florida amounts to about 30,000 bales of 500 pounds. This will be the rival of tobacco, as the region growing the latter is the same as that of the former, to a great extent at least—the North Florida country. One advantage that Florida has over the other short-staple producers is that of having earlier seasons, and consequently earlier crops, which come into market while prices are better. Another advantage is the superior quality of the more southern fiber.

The aggregate value of the cotton crop has been estimated at nearly $4,000,000.

Silk.—In the list of the textile fabrics of Florida silk follows cotton, not so much for what has been actually accomplished as for the well-assured future that seems before it. As in the case of grapes for wine, the experiment in silk has been carefully, intelligently, and successfully made by a competent expert from abroad. Mr. C. G. Contini, an Italian silk-grower of ability and experience from Lombardy, known to silk-business men as the best center for silk in the world, came four years ago with his own variety of worm-eggs, settled in Florida, and has grown silk of the first quality and in such quantity as to indicate quite clearly that Florida is one of the best places in the world for silk-culture; this on account of both soil and climate. He finds already in Florida, and easily propagated to any desired extent, the best mulberries for this purpose—the white mulberry or *Morus alba*, and the *Morus multicaulis*, which has a history in America. Mr. Contini holds that the *alba* is far better than the others, especially for the southern counties, because the summer leaves are tenderer. These trees are the ones used in Lombardy. They should be planted not closer than two hundred to the acre. Other mulberries are used to feed silk-worms, such as the Russian with small leaves, the *Morus japonica*, and the black or wild mulberry; but the silk yielded is stringy and colorless. In Ohio osage-orange leaves, and even white salad and lettuce, are sometimes fed to hungry worms; but the cocoons thus fed are of no value.

The climate of Florida is equal to that of Italy, and better than that of France, in being more equable and temperate; the south of the State being better than the north of it for the same reasons. The number of crops a year increases with the better climate. Perhaps two crops a year north of

Sanford and three south of that line may be grown; but experiment has not gone far enough to establish any very definite rule upon that point.

It takes intelligent and persevering efforts to command success in this as in all other undertakings; but with these Mr. Contini holds that sericulture may be made the most profitable industry in the State—better than orange-growing, in yielding more profit with less watching, risk, and expense the year round. It takes two to four years to get well started, however. Feebler hands can do most of the work, too; and a man with a growing family can make from $1,000 to $1,300 a crop, six weeks to a crop, and make two or three crops a year, according to locality and latitude, and the current expense need not be above a third of that income.

A company has been organized in Jacksonville to push forward this attractive industry. They propose to grow silk, and to buy in all that produced throughout the State; and, as soon as the industry is on its legs, establishments for the manufacture—reeling, spinning, and weaving—of silk fabrics will be started. They are planting out some 300 acres in *Morus multicaulis*, that being accepted as the best—the most largely silk-producing—for that latitude and climate. In the manufacturing departments there will be improved machinery, beginning with the reeling and ending with the completed fabric.

The single thread of an ordinarily good cocoon is about a mile in length. It takes about five pounds of cocoons to produce one pound of reeled raw silk. The thread of good silk is very strong, and the color a deep straw shade.

Following silk, with a long interval, however, are—

Ramie, which as raw fiber is worth in Florida $80 a ton.

Sisal hemp, one of the agaves, toward the cultivation of which only spasmodic efforts have been made, and next to nothing has resulted.

Jute, merely among the possibilities of the future; and

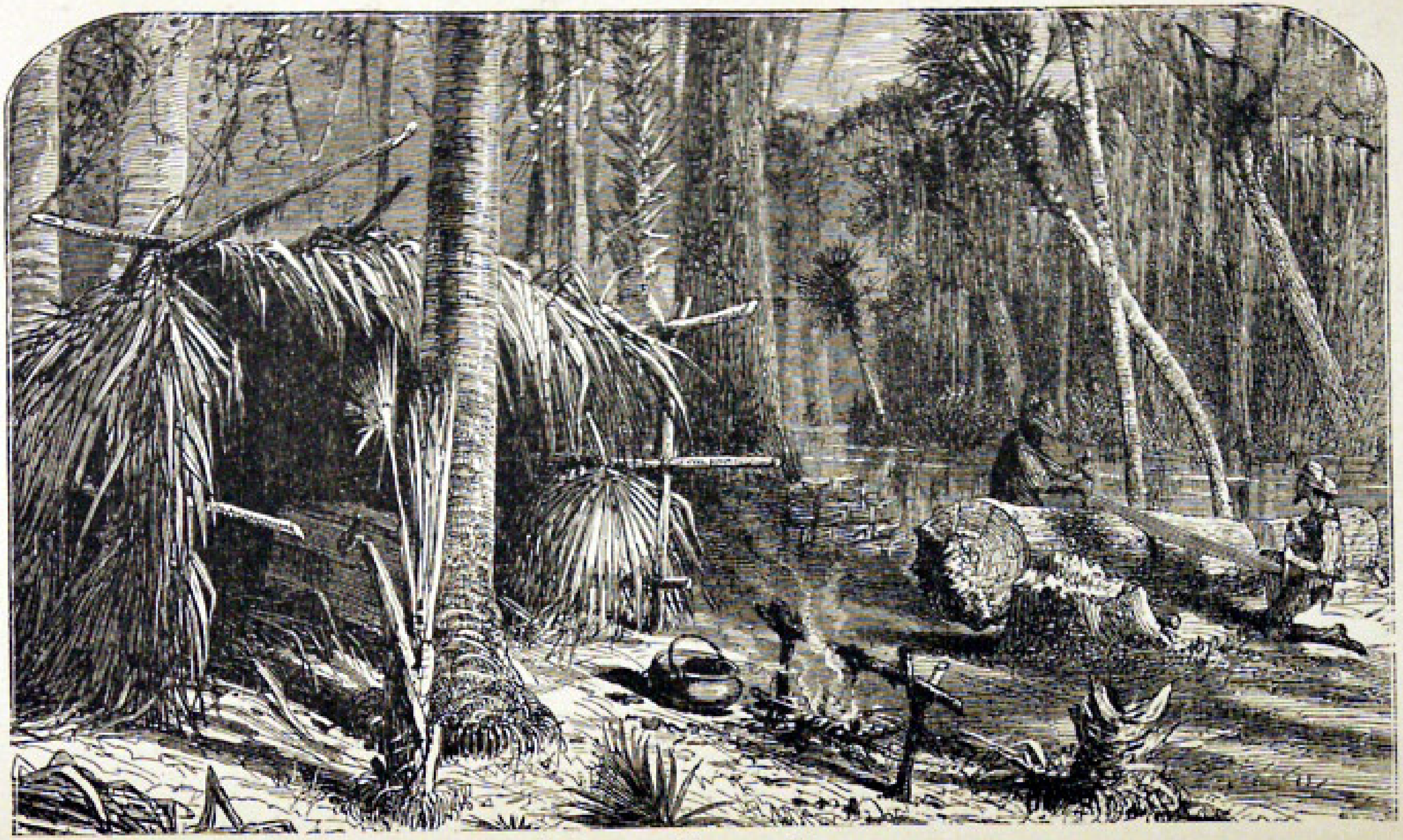
Yucca, a native ornamental feature which may have an economic use when scores of other veins have been exhausted.

Lumber.—By all odds the most important production of Florida industries, reckoned in dollars and cents, is lumber. It has been reckoned at five times the value of the cotton-crop, or nearly twenty million dollars, but that is manifestly excessive.

The chief item is the yellow pine, next cypress, and then cedar, oak, walnut, cherry, juniper, magnolia, hickory, beech, willow, bay, and so on to the end of the chapter. Of yellow pine there is an area of some 20,000 square miles. The superiority of this over all other pines as lumber is well known to builders; and houses covered with winter-cut shingles of cypress will last forty years, and for many other building purposes this wood has wonderfully staying properties. The cedar-factories at Cedar Keys yield immense supplies in the way of pencil-wood.

Professor A. H. Curtiss, as botanist under the General Government, explored the State and made some very valuable and interesting reports embodying his best results. He classes as trees all plants having solid, woody stems as much as four inches in diameter, growing erect or nearly so, and without support. The number stated he finds to be forty-seven per cent of all the trees of the United States, and a half more than found in any other State. He gives a list of uses, with the trees adapted to each respectively. This list embraces about one half of the Florida trees given in his general catalogue.

Professor Curtiss's list here follows, consisting of thirty-five uses and about one hundred trees:



A Cypress-Shingle Yard.

Agricultural Implements.—Red and pig-nut hickory, white and green ash, white, overcup, and chestnut oak.

Baskets.—Red hickory, pig-nut hickory, tough white oak, swamp chestnut-oak.

Broom-Handles.—White bay, tupelo.

Building.—For general construction a large variety of woods may be used, but pine is found most convenient, economical, and generally satisfactory. For all work that is exposed to the weather, either long-leaved yellow or pitch pine should be used. The latter serves almost as well for framing timbers, but for sills is not so durable. For sheathing and inside work generally short-leaved yellow and loblolly pine may be used.

Cabinet-work and Furniture.—Poplar, magnolia, white cypress, curly pine, birch, beech, chestnut, white oak, black walnut, red bay, white and green ash, sweet-gum, cherry, red and sugar maple, holly, loblolly bay, china-berry, and many of the subtropical woods. For cheap furniture, silver maple, hackberry, sycamore, linn, and pine are used.

Canes.—Orange, crabwood, princewood, torchwood, palmetto, royal palm.

Cooperage.—Bitter-nut hickory, white elm, mulberry, dogwood, sassafras, box-elder, cypress, juniper, and various oaks, namely, the white, post, chestnut, scarlet, black, and red.

Engravers' Blocks.—Dogwood.

Fencing.—For posts or rails the following trees are preferred: Black cypress, red cedar, juniper, yellow pine, post-oak, chestnut-oak, white oak, overcup oak, willow, hornbeam, chestnut, catalpa, mulberry, honey-locust, sassafras, slippery elm, hackberry.

Floats.—Tupelo.

Flooring.—Probably no wood is equal for this purpose to the long-leaved yellow pine. Where this is not obtainable, white elm, sugar-maple, etc., may be used.

Fuel.—Most of the pines, oaks, and hickories afford excellent fuel; also beech, sugar-maple, magnolia, black titi, etc. In Southern Florida the woods most used for fuel are the button-wood, Jamaica dogwood, crabwood, and torchwood.

Gun-Stocks.—Red maple, black walnut.

Interior Finish.—The kinds of wood best adapted to inside ornamentation are curly pine, red bay, white and green ash, sugar-maple, cherry, box-elder, black walnut, white oak, juniper, magnolia, and poplar.

Levers.—Hornbeam, ironwood.

Medicinal Barks.—These are afforded by the cherry, dogwood, white bay, willow, sassafras, Georgia bark, prickly ash, poplar, slippery elm, white oak, and by a number of the subtropical trees.

Oars.—White and green ash.

Ox-Yokes.—Black-gum, sassafras, black birch, sycamore, bitter-nut hickory.

Paper-Pulp.—Cottonwood, linn, box-elder.

Pencils.—Red cedar.

Piles.—Palmetto, yellow and pitch pine, black-gum, mangrove.

Railway Ties.—Black cypress, juniper, yellow pine, chestnut, post-oak, white oak, slippery elm, mulberry, catalpa.

Rollers and Bearings of Machinery.—Black-gum, dogwood, sourwood.

Saddle-Trees.—White elm, sugar-maple.

Shingles.—Cypress ranks the best, juniper second, and yellow pine is largely used.

Ship and Boat Building.—White, overcup, and live oak, yellow pine, cypress, juniper, poplar, mulberry, white elm, sugar-maple. Of South Florida woods: Jamaica dogwood, mahogany, mastic, wild tamarind, and inkwood, are favorite kinds.

Shoe-Lasts.—Sugar-maple, persimmon, beech.

Shuttles.—Persimmon.

Tanning-Bark.—The mangrove affords most tannin, but the kinds most used are the black and red oaks, and the tan or loblolly bay.

Tobacco-Boxes.—Sycamore.

Tool-Handles and Plane-Stocks.—Hornbeam and ironwood, red and pig-nut hickory, beech, persimmon, sourwood, sloe, sparkleberry.

Wagons and Carriages.—White and green ash, red and pig-nut hickory, poplar, and linn; white, post, and overcup oak.

Wheel-Stock.—White elm, slippery elm, and oaks of various kinds; hubs being made of red elm, black-gum, dogwood, and honey-locust.

Wooden Shoes.—Tupelo, black birch.

Woodenware.—Linn, poplar, white bay, juniper, black birch, tupelo, tupelo-gum, box-elder, red maple.

Rice.—Both varieties—lowland and upland—are grown in various parts of the State, but mainly for home use. Seventy bushels to the acre is a good crop, but a hundred bushels has been reported; while twenty-five content some of the thinner-soil cultivators. The Okeechobee country yields very fine crops when conditions are favorable. Some account of the crops in the newly drained region will be found in the pages on *Drainage.* The

U. S. Census of 1880 gives Florida credit for raising 1,294,677 pounds of rice. Professor Curtiss, one of the best informed men in the State, writes: "We take it that rice production in Florida may be regarded as a promising but undeveloped industry, and therefore a latent source of wealth. So far as we know, there is nothing needful to bring it into favor and render it a staple crop in every county, except facilities for 'milling' it, so that it may, without too much expense, be placed on the market in prime condition." To this he adds: "The fact that Florida has no rank in the market as a rice-producing State signifies nothing. Seven years ago Louisiana did not produce for export a bushel of rice. Seven years ago the first rice-mill was built in that State. Yet the statistics show that Louisiana's rice-crop for the season of 1886–'87 was one half greater than the combined rice crop of South Carolina, North Carolina, and Georgia. May it not be said of Florida seven years hence that her rice-crop exceeds that of all the other States? That undoubtedly is among the possibilities."

Sugar.—Sugar-cane grows well in all parts of the State, especially in the south; the farther south the better. Sixty tons of it has been grown to the acre. On the Caloosahatchee River a farm of fifty acres has grown cane eight years, the cane rattooning every year, and has netted $300 an acre for several years. Fair lands will produce from 1,500 to 2,000 pounds of sugar a year; and rich lands, thoroughly fertilized, will yield from 2,000 to 4,000 pounds. The draining of the Okeechobee region promises to furnish a large addition to the sugar-lands of the State.

Upon the matter of rattooning, Mr. Barbour, in his "Florida for Tourists, Invalids, and Settlers," says, "I am informed that on the lands of Indian River has been raised the nineteenth crop of cane from the same planting, and on the shore of Lake Worth cane is now growing which has not been replanted since the early Indian wars." This readiness to rattoon makes the crop far less expensive, so long as good returns continue.

Grains. — Florida can hardly be considered a grain country, although some of the grains do very well there; but, generally, in such places other crops do phenomenally well, so that there is no special object in developing the grain industries.

Grain does better in Northern Florida than it does in the extreme south. Corn does excellently well in the former region. The yield upon poor land, with "cracker" cultivation, is from ten bushels up to twenty perhaps; but intelligent and judicious cultivation can always make good yields. Governor Drew is reported to have raised 130 bushels of corn on common pine-land in 1878.

Wheat, oats, and rye are grown in Northern Florida very much as they are in the Southern States generally. Very little is sown. Barley is seldom seen.

Cattle.—The stock business is carried on mostly in the south—Semi-tropical and Subtropical Florida—below 29°; but cattle are raised and do well all over the State, Brevard County taking the lead both in number and quality of stock.

The aggregate number of cattle is put by Mr. P. O. Knight, of Lee County, at 250,000, and the total value at $1,250,000. Mr. J. Selwin Tait, of St. Augustine, author of "The Cattle-Fields of the Far West," in a paper recently published, puts the cattle of Florida, exclusive of sheep, at 613,515 head, and their value approximately at $6,000,000. The annual sales he reckons at 147,000 head, realizing, at $14, over $2,000,000 a year. He thinks that Florida has, in this cattle business, ready at her hands, the means of quadrupling her revenue, and he points out the ways and means. The larger herds—the subjects of the cattle-kings—range in number from 10,000 to 15,000 cattle.

In Northern Florida finer breeds of cattle—Durham, Devon, Ayrshire, Jersey, and Alderney—have been liberally introduced, within the last ten years especially; and great improvement in the quality of the cattle generally has been the gratifying result. In the lower counties, however, where the greater herds are to be found, very little has been done thus far to improve the breeds.

Sheep.—Northern Florida is the best part of the State for sheep. The pasturage suits them better, and the burs and spurs are not so likely to damage the fleece as in the lower and pinier regions. But burs and spurs must not be neglected anywhere. The industry of sheep-raising in Florida is old but not extensive. Bermuda grass is one of the best for sheep; and, when properly confined within good pasture-limits, they do anywhere very well; but the extent of the business and the size of the flocks are necessarily quite limited. A flock of 300 is large.

Goats.—Experiments with goats have not been very extensive, but the outlook for them seems to be quite as good as that for sheep, if not better. Angoras, Cashmeres, and finer-fleeced goats generally might succeed better than the common; but the conditions of fine success would necessarily be very much the same as for sheep.

Colonel Dennett, of Louisiana, says: "Goats thrive well in the pine-lands of the South, and more attention should be paid to raising them in these States. Goats are cleaner and more healthy animals than sheep; they are more sagacious, have more self-protection in them, and live and thrive on browse all winter. Sheep have so many infirmities, and need so much nursing and attention, and peculiar kinds of ranges, and convenient watering-places and good water, and so much care and protection, that few can spare the time and labor needed to preserve the flock and make it prosperous. Dogs, hogs, buzzards, eagles, all prey upon sheep and lambs, and they are liable to nasal catarrh, scab, foot and liver rot, diarrhœa, and numerous other diseases and frailties from which goats are almost entirely free. Considering the healthfulness of goats, and the loathsome diseases that prey upon sheep, we would always prefer fat kid to lamb or mutton."

The Angora has been raised successfully in the State of Coahuila, Mexico, which is in the same latitude as Florida, 24° to 30°. Mr. W. Broderick Cloete, of that State, has the largest and, considering its size, the finest Angora flock in North America. He has just made, so the "Texas Stockman" states, a large shipment of mohair to England. He has recently added 9,000 Angoras to his flock, by purchase from a herdman in Texas. If the Angora succeeds so well in Texas and Coahuila, there seems to be no reason to fear failure in Florida.

Other Stock.—The native hog, like the native cow and pony, seems to be rather run out. All these are better in Northern Florida than in the extreme south. With properly improved breeds, hog-raising in Northern Florida may be as successful as anywhere in the United States; but the genuine native, razor-back hog of Florida, wherever he may be found, can not be fairly ranked a first-rate animal as a porker. All these runts—hogs, horses, cows—seem to be the old Spanish importations, neglected and left to run wild for two hundred years, and so run down. But improved kinds of all these are being introduced; and all will do well, especially in Northern Florida.

Poultry.—All kinds of poultry do well in all parts of Florida, and there is almost everywhere a good local market for both poultry and eggs. The climate is all that could be desired, and especially fine for the Asiatic and Italian breeds—Brahmas, Cochins, Leghorns—but the Plymouth Rocks do equally well. The natural enemies of the chicken in South Florida are the wild cat, opossum, and skunk; while in North Florida it is the colored biped mainly, with the quadruped prowlers as incidentals occasionally, that makes poultry-raising risky.

Good local prices for poultry and eggs are well sustained in all parts of the State. In the subtropics, eggs sell at twenty-five cents a dozen the year round. A settler on Lake Worth—latitude 26° 40′—reports, the present season, 961 eggs from fourteen hens in three months; an average of twenty-three eggs a month to the hen. And many if not most parts of the State, with equal management, could probably do as well.

Turkeys, geese, and ducks thrive everywhere, but the abundance of wild turkeys and ducks renders the raising of domesticated birds unnecessary. The man that can shoot a brace of ducks any hour in the day need not bother with raising them, unless he prefers the domestic varieties.

Gardening.—This is fast becoming a leading industry in all parts of the State; and, as the State is settling up and developing southward, new products and new conditions are lending their attractions continually. Gardening or truck-farming is exceptionally attractive in the subtropical counties, on account of the important fact that most vegetables—tomatoes, celery, cucumbers, egg-plant, potatoes, and pretty much all the market spring vegetables in demand in the North—can be matured in that climate from two to four weeks ahead of even the central and middle parts of the State. As illustrative of the wonderful scope of that subtropical region, the following list of vegetables and fruits actually ripened and used on Lake Worth, in Dade County—latitude 26° 40′—during the month of December, 1886, is given. It was prepared by a resident of the place at the time, and is as follows:

Vegetables.—Beets, cabbages, cassava, celery, cucumbers, egg-plant, lettuce, onions, parsley, potatoes, pumpkins, radishes, snap beans, squashes, sweet potatoes, tanyahs, tomatoes, turnips, and watermelons.

Fruits.—Bananas, citrons, cocoanuts, figs, guavas, lemons, limes, oranges, papaws, plantains, pineapples, sapodillas, and sugar-apples.

This list does not give the scope of vegetable and fruit productions, but what were actually on hand during the midwinter month of the year of the great freeze. There is nothing invidious in presenting this special list of one region, for the whole State teems with vegetables and fruits all the year round, varying with the soils, cultures, elevations, and latitudes; but everywhere and always a rich and royal abundance. Its own special product is shipped from every locality in the State; and in ten years from to-day these shipments will doubtless be in the aggregate five times as great as they are now.

Mr. W. D. Chipley, of Pensacola, in his "Facts about Florida," gives the following facts in regard to the yields in Northern Florida: "A man in Tallahassee had prepared his acre of land, and planted it in Irish potatoes in January, 1884. In April he planted corn between the rows of potatoes and dug the potatoes in May, which gave the last dressing to the corn. In July he planted between the corn-rows sweet potatoes, which he harvested in November, and he counted up his yield as follows: 96 barrels of Irish potatoes, worth $4 a barrel, $384; 40 bushels of corn, worth, with the corn-shucks for fodder, $40; and 300 bushels of sweet potatoes, worth $150; a total of $574 from a single acre of ordinary farm-crops. Had the acre been set with pears, peaches, figs, olives, or Japanese persimmons, with less labor and less outlay for manures, he might have realized even greater profits; and in garden products still more would have been realized." These facts do not need comment.

An extensive truck-farmer of Florida may be quoted as giving the following estimates of what as an average crop can be grown on an acre:

Tomatoes, 200 bushels; cucumbers, 200 bushels; snap beans, 100 bushels; Irish potatoes, 50 to 75 bushels; green peas, 75 to 100 bushels; cabbages, 50 to 150 barrels; melons, 500 to 1,000; strawberries, 2,000 to 4,000 quarts.

A gardener's calendar of what to plant and what to gather each month in the year would give a fine exhibit of Florida's horticultural resources; but—it would be too long for these pages.

Besides the vegetables generally produced in the Southern States, there are some whose area is limited. Among these may be mentioned the tanyah, cassava, and comptie. The *tanyah* is the *Colocasia esculenta*, according to Professor Whitner, and the *Calladium esculentum*, according to others, and is much eaten in the Sandwich Islands. It is remotely as to its roots like the sweet potato, with more starch and less sugar. Its large and handsome leaves are familiar to most readers. It grows best in moist rich lands almost without cultivation. *Cassava* has been a good deal written about, and is far better known. It will yield more tubers to the acre than any other of the edible-root family. One grower reports 56,000 pounds, or a thousand bushels, to the acre; and others report as high as 80,000 pounds. Analysis shows the cassava to be exceedingly rich in merchantable and nutritive elements, yielding about 30 per cent of glucose or sirup, 40 per cent of starch, and 10 per cent of the residuum, tapioca. It is very valuable as stock and poultry food, and properly prepared is an excellent article for the table. It is easily propagated, from the stalk and branches cut into pieces; and will grow in any soil, but yields most in the best soils. *Comptie* grows wild in the subtropics. In Dade County the people for many years have been manufacturing from it starch and a species of arrow-root, for the Key West and local markets, and for home use.

Opium.—The making of opium from the poppy has been tried with fair measure of success. One individual reports fifty pounds made by him at one time; and at City Point on Indian River—about latitude 28° 22′—intelligent experiments have been made through several years; and, under the stimulus of a new process, put forward by Mr. W. W.

Winthrop, of extracting the morphia directly from the poppy instead of the old process of extracting it from the gum-opium, it is likely that a new and practical impetus will be given to poppy-growing. Mr. Winthrop says of his process: "I extract the morphia, so to speak, from the plant direct, without making it into gum-opium first. In other words, I extract the morphia from the meconate state in which it is held. This will be an immense saving, but it will require considerable capital to build up a factory, etc., to manufacture morphia in quantities. The chemists extract the morphia from the gum, and it is as morphine that most of it is used." The same writer thinks that $700 an acre is not a large estimate for poppy-growing. The time to plant in that latitude is March and April. Farther south this time would be a little earlier, and farther north a little later.

Honey.—The bee works in every latitude, and has ample materials everywhere. In far south climates the honey-bee, like the human bee, having all the year before him in which to work, works more leisurely; and his stores have to be plundered judiciously in order to encourage his perseverance in storing liberally. Little has been done at bee-raising in Florida beyond supplying home needs of honey, but the industry could be extended vastly, if there should be occasion; but, where there are so many attractive and remunerative directions of labor, it is not to be expected that everything can be pushed forward at the same time.

Out of the Waters.—The waters yield seven merchantable products—fish, oysters, turtles, sponges, shells, corals, and alligator spoils.

A writer in Key West states that the fish business in South Florida amounts to $800,000 a year; and even Cuba is supplied with fish from these waters. From the everywhere-present and always excellent sea-mullet to that prince of fish the pompano, all the edible fishes are fine and sell well. There are fisheries all along the 1,200 miles of shore, and Northern Florida exports fish in large quantities. Appalachicola, Pensacola, and Cedar Keys, all ship large quantities of fish. The *sport* of fishing is discussed on other pages.

Oysters abound in most parts of the State. Scores of boats engaged in this fishery business center at Key West; and all the way up the Gulf coast and the whole extent of the Atlantic coast, from Fernandina southward at least to the 27th degree of latitude, oysters planted by Nature abound. Many private plants are now being made, especially on the

South Atlantic and Gulf coasts, notably in the Cedar Keys region. Canning has been begun, with considerable capital employed.

Turtles.—Four or five kinds of turtle are very plentiful, especially on the south Atlantic and south Gulf coasts. Of these, the green turtle—*Chelonia mydas*—is perhaps the most prized; but there are also loggerheads, hawkbills, and trunkbacks. They weigh from a few pounds up, it is claimed, to 1,200 pounds each. The turtling business is varied. The turtles are captured mainly with nets, but are also caught while on land, and trapped in various ways. Turtle-turning is a sport for the boys as well as profit-pursuit. The turtle-boats spend frequently two months on the turtling-grounds, and the business, it is said, is worth some $400,000; but such estimates are vague approximations merely.

Turtle-eggs, of which the turtles lay from 100 to 300 in each nest, are also valuable as food, and in their season make an appreciable item in the provisioning of the far south pioneer settlers. In Key West the beef and the turtle markets stand side by side, and many prefer the latter as a regular meat-supply. Turtles are shipped alive to the Northern markets from Key West, Lake

Worth, Biscayne, and several points on the Gulf coast.

A species of tortoise or terrapin, that burrows in the sandy soil, and popularly known in this State as the *gopher*, is commonly eaten; and considerable shipments in a retail way are made from the Gulf coast to the Key West markets. Gopher *calipash* is a popular dish in some neighborhoods.

It is a somewhat singular philological fact that the animal here called gopher is known in the West as the salamander; while the burrowing rat that in the West is called gopher is here known as the salamander. The derivation of the word *gopher*, from the French *gaufre* (honey-comb), doubtless led to the confounding.

Sponges are gathered in several parts of the State, especially in the far south regions. Appalachicola, Rio Carabelle, St. Mark's, and Cedar Keys, do a good deal in that way. Key West claims to export 500,000 pounds a year, the bulk of it going to Paris. There are a hundred and fifty sponging-boats that center at Key West. The sponge-trade of the State is stated by some tropical writers as fully $1,000,000 a year, but this is probably somewhat over the mark. The sponges are taken in waters from five to twenty feet deep. They are dislodged from their beds with hooks, taken ashore, and lodged until life is extinct; then beaten, cleaned, and dried—altogether a most unsavory work. Some spongers make as much as $1,000 in a month of the sponge season. Many of the fine and expensive *Mediterranean* sponges sold in our Northern markets are gathered in Florida, shipped to Paris, retouched, and exported thence to America—to demonstrate the superiority of European wares!

Shells of divers kinds and *corals* are gathered in many places; the farther south, the richer and more numerous they are. Going southward, these products of the sea increase in color, size, and value.

Alligators from their amphibious domain contribute teeth and hides, and these have been much sought of late years. The shooting of alligators ceased a few years ago to be a sport worthy a respectable sportsman, and is now a legitimate business pursuit, but not very extensively pursued, because not easy nor very profitable.

XI.

SPORTING.

Fishing.—Writers on sporting, whether in the field of fin, fur, or feather, agree almost unanimously in pronouncing Florida a paradise for sportsmen; although, as between land-sports and fishing, the latter is unquestionably the finer. One of the ablest and best-informed writers of to-day, Mr. S. C. Clarke, of Marietta, Georgia, widely known as an angling naturalist, holds that "the coasts of the Peninsula of Florida afford a greater variety of species of fish, and probably a greater variety of valuable food-fishes, than can be found in any one region in the United States." Dr. Charles J. Kenworthy, of Jacksonville, the "*Al Fresco*" of the sporting journals, a leading authority in sporting matters in Florida, bears ample testimony to the supreme excellence of that State's piscatorial advantages. Her 1,200 miles of salt-water coast, added to her fresh-water bodies — lakes, rivers, ponds, springs, havens, and bayous—give both variety and diversity of field, and supply a variety and diversity of fishes altogether exceptional. Our knights of the rod find here some migratory fishes that are common on the Northern coasts, such as the striped bass, sea-bass, blue-fish, sheepshead, and weak-fish ; others that do not usually range farther north than Delaware, such as the black and the red drum ; others that are local in their habits and range, such as the groupers and snappers ; others again of a more tropical character, that appear on the Florida coast only in warm weather, and whose home is the more tropical latitudes, as the tarpum, cavalli, and the lady-fish. All along the ocean and Gulf coasts, where the fresh-water lakes are near the sea, there are to be found within a mile or two both salt and fresh waters, with their separate and distinct families of fishes. In other places, notably at Lake Worth, in Dade County, there are three classes of waters—the ocean which is salt, the lake which is semi-salt, and the lakes inland which are fresh—all within less than three miles ; thus affording three classes of fish. "Nowhere," says Mr. Clarke, "in our broad country can the angler find greater variety of game or more or better sport than on the coasts of Florida. In an experience of more than fifty years as an angler, reaching from Canada to Florida and from

Massachusetts to Colorado, the writer has found no region where fish were so abundant as on this [the East Florida] coast."

An exhaustive list of the fishes of this State would cover the whole scope of Southern waters, both temperate and tropical, and both salt and fresh. Dr. Henshall, in his racy book on Florida, gives a list of one hundred and twenty species found by him in these waters. Of course, the fish vary with the latitudes, the southern waters having more kinds and larger fishes, and the sportsman that wants the finest sport in this line will go to the far south, either Gulf or Atlantic side.

The most attractive fishes, taking the common ground of both fun and food, seem to be the following:

The *pompano* is generally known by that name, although the early French settlers in South Carolina called it the crevalle. It is the most valued food-fish of the Southern waters, and in the New Orleans markets it ranks first. It is a bottom-fish, and the angler that expects to hook it must be alert. Mr. Joseph B. White, of New York, writing from Lake Worth Inlet, in Dade County, reports, during the present year, his capture of a pompano weighing twenty-one pounds. He used a bass-hook with conch bait. This is probably the largest pompano ever caught in Florida waters. The usual average weight is perhaps less than half that.

The *sheepshead* ranks close to the pompano as a sport-fish, and is somewhat more easily and more frequently caught.

The *channel bass* is called red drum in Virginia, spotted bass in South Carolina, and redfish in New Orleans. It is considered one of the best game-fish in these waters, a strong and persistent fighter, and sometimes weighs forty pounds, and on the line feels as if it weighed two hundred.

The *salt water trout* or spotted trout — the *Cynoscion maculatum* of the books — is easily caught with hook, weighs from three to fifteen pounds, and is an excellent food-fish.

The *red grouper* is a bottom-fish, of fine quality, strong, wary, and is best caught with mullet-bait; and when hooked generally makes for his covert under the roots and rocks, whence only the smaller sizes—say five-pounders—can be hauled by ordinary man-power.

The *cavalli* frequently weighs ten to twelve pounds. It is finer as a game-fish than as food, and will take almost any bait, but will fight to the death before it will leave the water, and dies as soon as landed.

The *mangrove snapper* is a secretive and shy fish, like the grouper, and is caught in the same manner.

The *Spanish mackerel* in its season is a prince among fish; and many consider it superior to the Pompano, and it is much less frequently caught.

The *lady-fish*, or skip-jack as it is sometimes called, is the most agile and acrobatic of all these Southern fishes; and, while almost useless for the table, gives her captor sport galore.

The *barracuda*—the *Sphyræna barracuda* or *picuda*—is a strong fish, of good quality, and a great favorite with anglers. The smaller sizes usually caught are excellent for food, but the large ones are unmanageable on the line and rather coarse sometimes.

The *tarpum* or tarpon is a herring-shaped fish, often five or six feet long, of giant strength, and generally takes the tackle with him into the ocean. It weighs from a hundred pounds up to several hundred, and is too coarse ordinarily for food, but always attractive to adventurous anglers. The *Jew-fish* also is a large fish; so also are the *sharks;* albeit anglers do not usually care to cultivate or to tackle either of them.

The *mullet* swarms in most Florida waters, and can be caught best with cast-net or seine, for it refuses all kinds of bait. Fishermen frequently catch the mullet with cast-net or dip-net, and use it as cut bait. The mullet is fair food, but the netting for them of course injures the fishing at that place. The silver or white mullet is the one that abounds in Florida.

The *blue-fish* is first-class game, and also excellent food.

The *drum* is a rather coarse fish, and in the extreme south is not commonly eaten, although about St. Augustine its quality is better. The largest sizes weigh as much as forty pounds, and can pull like a horse. The *red drum*, called in East Florida the channel bass, is perhaps the *Sciænops ocellata* of Gill. It is an omnivorous fish, bold, strong, and intelligent, weighing sometimes fifty pounds; but this size is not often pulled in with an angle line. The habits and fighting methods of the drums are similar to those of the sheepshead, and it takes both skill and strength to land either quickly.

A fine fish of the *flounder* or the *sole* family has been caught on the Atlantic shore of the subtropics, but it is by no means common.

Bream is in much favor, and is very abundant.

Besides these there are scores of fishes more or less common; as the moon-fish and the sun-fish, the pike, the bonito, red-fish and whiting, snapper and snook, gag and gar, sucker, eel, grunt and porgee, the dainty needle-fish, the wonderful flying-fish, the formidable sword-fish, saw-fish, and sharks, the hateful rays and stingarees, cat fish, and hog-fish, angel-fish and devil-fish, anchovy, menhaden, sailor's choice, and minnows.

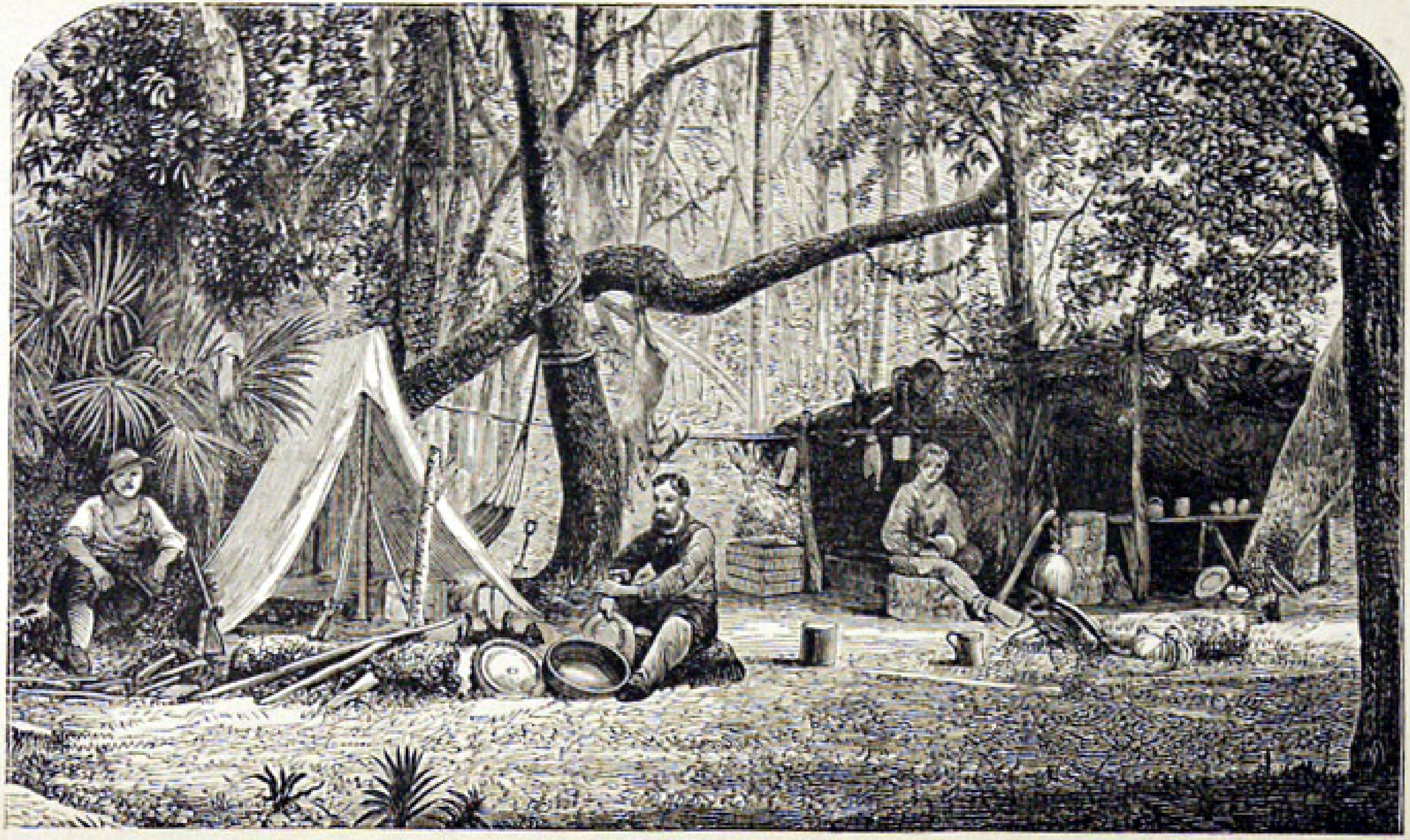
A list of the fishing-grounds of Florida would embrace almost every place situated on water; and, in view of the extent of coast, number of lakes, and multitude of islands and keys, it is evident that the number of such places is rather large. Dr. Kenworthy undertook several years ago to make a list; and he named over thirty places, scattered from Fernandina round to Pensacola, and all through the numerous lake regions and meandering rivers. The fact is that, while some places are better situated for fishing than others, there is hardly anywhere that good fishing can not be had. Other things being equal, the best grounds can not be expected near cities and large towns, where steamers and various sailing-craft frequent and scare away the finny game; nor in waters where the cast-net, the dip-net, the gill-net, and the seine are industriously plied. Business interferes with pleasure. Rock Ledge, St. Lucie, Lake Worth, Biscayne Bay, Cape Romano, Charlotte Harbor, Tampa Bay, Cedar Keys, and so on—every port, bay, river, lake, and bayou, from the St. Mary's to the Perdido—are all, with the *if* above named, fine fishing-grounds; and each several one (some enthusiastic dweller there will confidently assure you) is the fisherman's paradise—whatever that is. But it *is* true that wherever the sportsman may please to go, at the proper time for fishing there—be it ocean, gulf, bay, bayou, channel, sound, river, lake, or spring—there he will find interesting sport. He may have angle, net, seine, gig, or barb—in boat or from the shore—by day or with torchlight—whether he is fishing for fun or for fish—and he will find on this continent no better theatre for his piscatorial feats than these Florida waters.

With regard to tackle, Dr. Kenworthy says that the game-fish of Florida are uneducated, and make no distinction between a mist-colored leader and a clothes line. The great desideratum for Florida fishing is strength of tackle—stout lines and large hooks. A heavy bass-rod is all-important; if fly-fishing is indulged in, the rod should be not less than eight ounces. As the fish are not particular, expensive flies need not be used. For hand-line fishing, resident experts use cable-laid cotton and braided cotton lines.

Hunting.—Game is plentiful in most parts of Florida, though less so than fish, and both are more abundant in the sparsely-settled south than in the older regions farther north.

The best game seems to be deer, duck, turkey, bear, panther, wild cat—in that order—and lastly small game. In this class may be named the hare or rabbit, opossum, raccoon, squirrel, quail, and the host of birds.

The *deer* abounds especially in the far south; and experienced sportsmen have written up several localities—St. Lucie and Rock Ledge on Indian River, Lake Worth, the Caloosahatchee Valley, Kissimmee, Clear Water Harbor, and so on. The hunting is generally without dogs; and the hunter or party of hunters, having reconnoitred the field, moves cautiously through the woods, standing at selected points, and thus finds the animal without alarming it. This is the Indian method; and the Indians are always successful hunters. The deer has certain hours to feed, to drink, and to take salt; and is easily found by those that study these



A Hunter's Camp.

hours carefully. The moon affords favorable light at certain periods, and showers direct the game to certain pastures. The hunter that heeds these little *indicia*, apparently trifling though they seem, need rarely return home gameless anywhere in the game region. But the visiting sportsman will frequently bring with him his own special code of field-ethics, and is likely at the outset to despise the simpler and more primitive tactics of the resident hunter. But, whatever be the ethics or the tactics, the main point and purpose of hunting will be the same—abundance of game.

Duck-shooting is a science—at least an art—of the expert that calls for no special discussion. In their seasons these birds abound in countless hosts in certain localities, and these localities are almost everywhere that water and shore present good conditions. Dr. Henshall found seventeen species of ducks in Florida. His list embraces the canvasback, mallard, three teals—the black, the wood, and the pintail.

Turkeys exist generally with the deer; and, while they are scarcer than deer, they afford excellent sport to those fond of that kind. The common wild turkey—*Meleagris gallopavo Americana*—is the only species reported by hunter-naturalists.

Bears are getting scarce, except in the deep recesses of the southern unsettled country, and even there bear-hunting is comparatively rare of late years.

Panthers and wild cats are hardly legitimate objects of sport-hunting. They are generally hunted by the residents in order to rid the country of depredators, and directly in the interests of poultry-yards and pig-pens. But the hunter for other game sometimes encounters one of these pronounced characters, and the amount of fight and run—generally the run precedes the fight—is ample to attract considerable attention.

In addition to the above-named, the fur game—including pests and prowlers—of Florida embraces the following: Lynx, wolf, fox, mink, skunk, otter, polecat, salamander, rat, mouse, and mole. In Allen's "Mammals and Winter Birds of East Florida" much valuable and interesting information in this direction may be found; also in Henshall's "Camping and Cruising in Florida."

The feathered tribe, besides the bird game above mentioned, is very numerous, fine-plumed, and sweet-voiced. There are the blue-bird, the blackbird, and the cardinal-bird; the thrush, bobolink, cat bird, oriole, and the polyglot mocking-bird; the titmouse, wren, and humming-bird; the sparrow, lark, snipe, dove, kingfisher, and jay; the vireo, shrike, cherwink, grackle, woodpecker, woodcock, and plover; the crow, eight species of hawk, owl, king-buzzard, and vulture; the paroquet, willet, sandpiper, godwit, stilt, marsh-hen, and rail; a variety of cranes, eight species of herons, the flamingo, bittern, gallinule, gannet, curlew, and ibis; the limpkin, pelican, cormorant, and water-turkey; the gull, tern, egret, skimmer, and the gnat-catcher; the warbler, killdeer, whip-poor-will, and chuck-will's-widow. These are permanent residents; and winter brings some seventy-four other tourist birds.

Without being game in the ordinary sense of that word, the alligator, which abounds in all the available fresh-water streams and lakes in the State, is extensively hunted, and that too for mere sport, as well as for hides, teeth, etc. That is, in addition to being an industrial pursuit, alligator-killing is a sport, and pursued by a certain class of tourists for the mere fun of murdering the creatures.

The same is true, to a very limited extent, however, also of the manatee. This monster amphibian is strictly subtropical. It is found, on the Atlantic side, as high up as the St. Lucie River, near latitude 27°. The younger ones have flesh that is tender and wholesome, and these calves are said to be much sought by both Indians and whites. The manatee is sluggish and clumsy, sometimes twelve or fifteen feet in length, and ten or twelve feet in girth; and when well grown will weigh a ton. One writer gives the maximum weight as 3,000 pounds. It has two hand-like flippers, small eyes, and a head very remotely like a cow's. It is pachydermatous, of dark-brownish color, and has sparse hair; is a harmless and docile beast, and is usually caught, as turtles are, with a strong rope seine. It is also shot or harpooned.

The grampus is much rarer than the manatee. This monster has been captured, or killed, and landed on the Gulf shore, in Hillsborough County, and perhaps in other places.

XII.

PESTS.

Insects.—Much exaggerated nonsense has been written about the insects of Florida. It is true that the earth, the waters, and the air there teem with life, as they do in all southern climates. But it is also true that the insects are not aggressive in proportion to their number. Human life is naturally shaped so as to offset the natural surroundings; and no civilized man need succumb to so trifling an enemy. The same means that suffice to keep off mosquitoes in New Jersey will keep them off in Florida. The mosquito season is longer in the South, but these insects can be kept at bay more easily in the South for the reason that much greater attention is paid to appliances for that purpose. Houses are constructed so as to exclude them; and, with windows and doors properly wire-netted or closed with gauze of suitable texture, and beds properly protected with netting, there need be no great annoyance from mosquitoes. When they get foothold in a room, a spoonful of insect-powder—*pyrethrum*, of several varieties—burned will expel or kill them. It can be grown there. Smudge-fires to windward will always banish the mosquitoes.

Fleas abound in some places, mostly where hogs and dogs live about the place; but these can be readily kept away with pennyroyal and several other plants, easily cultivated there.

Gnats, flies, and that class of pests, seem to be about the same as elsewhere. Where there are little pests, there are usually larger enemies to them to keep them down. A large insect known as the mosquito-hawk destroys countless thousands of gnats, as do also the spiders, birds, and lizards.

The red-bug annoys those that hunt him up in the jungles and tangles of weed and undergrowth; but nobody need hunt up such pests.

The cockroach about the house is an annoyance, but borax or some similar drug—insect-powder, for example—will drive all roaches away. The same is true of ants.

Sand-flies are very annoying in places, but nowhere constantly. They come and go, and are generally so near the water's edge that it is comparatively easy to keep away from them. These pests, as well as all mosquitoes, gnats, and air-flies, may be kept at bay with smoldering fires, popularly known in Florida as smudge-fires, built and burned to windward of the spot to be protected. Materials of pleasant-odored smoke abound everywhere, and a spoonful of insect-powder will insure the desired effect.

Reptiles.—There are three kinds of snakes in Florida that are poisonous—the rattlesnake, the moccasins, and the adders, there being two varieties of the moccasin and two of the adder. These all, especially the rattlesnake, flee from man; and years of life in Florida have been passed without ever hearing of a case of bite from any of these snakes. The habitat of these reptiles is the jungle, the swamp, and the thicket, places that it is rarely necessary to visit. The hunter and the fisherman will naturally provide themselves with protection against such dangers, and deserve to be bit if they do not.

There are several snakes that are wholly innocuous—the king-snake, the bull or gopher snake, the ordinary black-snake, the coach-whip, the ground-snake, and indeed all except the rattlesnake, the moccasin, and the adder.

Frogs, toads, and the like, serve their several useful purposes, as they do elsewhere, and should be protected and cultivated intelligently.

Land-Sharks. — It is difficult to classify these pests, as they are not strictly insects, nor reptiles, in the herpetological sense of that word. They must be tolerably known to the intelligent reading public of to-day; although, like Proteus, they assume new shapes with wonderful facility.

The boomer is one variety of these sharks. He has a wonderful vocabulary of adjectives, both laudatory and abusive; the former for his one little Eden where his lands are to sell, and the latter for everywhere, everything, and everybody else.

The paper-town shark is one of the most recent evolutions. He is multiform and irrepressible; and the public would better think twice before reading his wonderful "circular." The drop-game of the last generation, and the saw-dust trick of this, are neither of them so beautiful and attractive as this stupendous sell of Florida. While there may be honest and truthful boomers of the paper-town "racket," and doubtless there are, the public needs a volume of admonition and advice; and that volume is faithfully condensed in the one word—BEWARE.

As the tourist and prospector for a home in Florida goes on in his tour of inspection, he needs to weigh well the testimony he receives. If he do not, he is likely to settle in the first community he interviews; for every one of these seems to feel under obligation to belittle every other community that lies ahead; and in this belittling there is too often a deal of belying. The traveler arrives at Jacksonville, and looks about him. He there is likely to get the impression that the civilization and refinement of the State center there; and that every step into the interior is a step toward the backwoods and barbarity, discomfort, malaria, and general nothingness. His first step is into the St. John's River region; and there he is in like manner plied with the idea that he is in the center of progress, culture, and happy exemption from all the ills that lie so heavy on the benighted lands to the southward. His next step is to Indian River; and there he gathers in the comforting idea that he is in the genuine original center of civilization, where Nature is at her best, where real progress is bursting out, and where there are none of those disgusting and discouraging drawbacks that curse all the land that lies south of that paradise—the subtropics of Lake Worth and Biscayne Bay, where there *can* be nothing but insects, vermin, mud, malaria, Indians, desolation, abomination, discomfort, disease, black death, and poverty—where nothing will grow but comptie and mangroves, and where nobody lives anyhow.

But the traveler should listen at Jacksonville, listen on the St. John's, listen on Indian River, and listen in the subtropics. One disillusion ought to open his eyes. Generally it doesn't. But three or four disillusionings will suffice for all, save the fool; and *he* would better stay at home.

This is not intended to mean that "*all* men are liars"; but that the explorer is likely to encounter in any community enough of that entertaining class to give him just that set of ideas. It means more; to wit, that that class of meddling romancers is just the one to hunt up, pursue, and persecute the tourist and stranger with their hoarded treasures of lies about the country. These misrepresenters are fully equipped with all the resources of their trade—the *suppressio veri*, the *suggestio falsi*, the innuendo, and the lie out of whole cloth. They are irrepressible, effusive, plausible, unescapable, intolerable. The Ancient Mariner was passivity itself in comparison with these. The tourist must hear them. Let him listen, and—go on.

APPENDIX.

RAILWAY ROUTES.

A.—FLORIDA CENTRAL AND PENINSULAR RAILROAD.

CENTRAL DIVISION.—Beginning at Fernandina, the Florida Central and Peninsular R. R. extends directly across the State to Cedar Keys, on the Gulf coast (154 miles), crossing at Callahan the Savannah, Florida and Western R. R. (Waycross Branch). Baldwin, at the crossing of the Western Division from Jacksonville to Chattahoochee, is 47 miles from Fernandina, 20 from Jacksonville, and 107 from Cedar Keys. Waldo is 84 miles from Fernandina, at the junction of the Southern and Central Division. Gainesville (98 miles) is the principal town on the line of the road. It has 5,000 inhabitants, four churches, four hotels, and two newspapers. Cedar Keys is the Gulf terminus of the railway. From Cedar Keys a steamer sails on Mondays and Thursdays for Tarpon Springs, at the head of Anclote River, a voyage of eight hours. Eighteen miles west of Cedar Keys, the Suwanee River, navigable to Ellaville, enters the Gulf; and the Withlacoochee River, 18 miles south.

SOUTHERN DIVISION.—This division of the Florida Central and Peninsular R. R. diverges at Waldo in a direction nearly southeast, crossing at Hawthorne the track of the Florida Southern R. R. Citra and Anthony are passed on the way to Silver Spring junction, whence a branch two miles long leads to Silver Springs. Sixteen miles south is the Lake Weir country, and 10 miles farther is Wildwood (whence a branch line runs to Leesburg), to Plant City, where connection is made with the South Florida R. R. At Tavares (22 miles from Wildwood) is the terminus of this division, where connections are made with Sanford, on the St. John's River, and Orlando.

WESTERN DIVISION.—From Baldwin this branch runs to the Chattahoochee River, River Junction being its western terminus. It passes through Olustee, Lake City, Live Oak (where it intersects the Florida branch of the Savannah, Florida and Western R. R.), Ellaville, Madison, Tallahassee, the capital, Quincy, and other towns. It connects at Chattahoochee River with the Louisville and Nashville R. R. for Pensacola and New Orleans.

B.—JACKSONVILLE, TAMPA AND KEY WEST RAILROAD.

This line, starting from Jacksonville, follows the course of the St. John's River, passing through Orange Park, Magnolia, Green Cove Springs, Palatka, Seville, Astor Junction, De Land Junction, and Enterprise. The main line crosses the St. John's River by a bridge 3,500 feet long to the terminus at Sanford. The St. Augustine division connects Jacksonville and St. Augustine by an air-line road of 36 miles. The De Land branch connects the main line, at De Land Junction, with De Land, a town of 3,000 inhabitants. The Indian River division extends from Enterprise Junction to Titusville, the largest town on Indian River. At Palatka the main line connects with the Florida Southern Railway for Gainesville, Ocala, Leesburg, Pemberton Ferry, and Brooksville. Connection is also made at Palatka with the St. John's and Halifax road for Ormond, Daytona, and Halifax River. At Orange Junction the main line connects with the Blue Springs, Orange City and Atlantic R. R. for Orange City, Lake Helen, New Smyrna, and Hillsborough River; at Monroe with the Orange Belt R. R. for Oakland, Apopka, Brooksville to Point Pinellas, on the Gulf; at Sanford with the South Florida R. R. for Winter Park, Orlando, Kissimmee, Bartow, and Tampa, where are met the Cuban mail-steamers Olivette and Mascotte, of the Plant Line, for Key West and Havana.

C.—SOUTH FLORIDA RAILROAD.

From Sanford this line passes Belair to Maitland, a colony of Northern families, and the rising resort, Winter Park, beautifully situated on Lake Osceola, five miles in circumference. Passing Orlando, with 3,500 inhabitants, the road reaches Kissimmee City, skirts Lake Tohopekaliga, and continues through Lakeland and Plant City to Tampa.

D.—FLORIDA SOUTHERN RAILROAD.

This line extends from Palatka, crossing the Florida Central and Peninsular R. R. at Hawthorne to Leesburg, where it connects with the St. John and Lake Eustis branch. From Leesburg it is continued to Pemberton Ferry, Lakeland, and Bartow, where it meets lines from Sanford, Orlando, and the St. John's River. From Bartow trains run to Punta Gorda, on Charlotte Harbor.

RIVER ROUTES.

THE ST. JOHN'S RIVER.

The town of Mayport—the quarantine post and anchorage of Jacksonville—lies on the left of the river at its mouth. Opposite is Pilot Town and St. George's Island. Daily boats run from Jacksonville.

Jacksonville is 21 miles from Mayport. At this point the St. John's, after flowing north for 300 miles, turns eastward and empties into the Atlantic. Its whole course, which lies through an extremely level region, is about 400 miles, and throughout the last 150 miles it is little more than a succession of lakes, expanding in width from 1½ to 6 miles, and having at no point a width of less than one half mile. Its banks are lined with a luxuriant tropical vegetation, handsome shade-trees and orange-groves, and here and there are picturesque villages. The steamers of the De Bary and People's Line leave Jacksonville daily at 3.30 P. M. for Sanford and Enterprise. Time, about eighteen hours; fare, $4.50; round trip, $8. Returning, leave Sanford at 2.15 P. M., and reach Jacksonville next morning. Others make a daylight run, leaving Sanford at 5 A. M., and arriving at Jacksonville at 6.10 P. M. The following is a list of places on the St. John's. The distances are from Jacksonville:

	Miles.
Riverside	3
Black Point	10
Mulberry Grove	11
Mandarin	15
Fruit Cove	18
Hibernia	22
Remington Park	25
Magnolia	28
Green Cove Springs	31
Hogarth's Landing	36
Picolata	45
Tocoi	52
Federal Point	60
Orange Mills	64
Dancy's Wharf	65
Whitestone	66
Russell's Landing	69
Palatka	75
Rawlestown	77
San Mateo	80
Buffalo Bluff	88
Satsuma	100
Welaka	100
Beecher	101
Orange Point	103
Mount Royal	109
Fort Gates	110
Georgetown	117
Lake View	132
Drayton Island	135
Volusia	137
Orange Bluff	140
Hawkinsville	160
De Land Landing	162
Lake Breresford	165
Blue Spring	172
Shell Bank	193
Sanford	199
Mellonville	200
Enterprise	205
Cook's Ferry and King Philip's Town	224
Lake Harney	225
Sallie's Camp	229
Salt Lake	270

Fourteen miles above, on the east bank, is Mandarin, one of the oldest settlements on the St. John's. It is the winter home of Mrs. Harriet Beecher Stowe. Magnolia (28 miles), on the Jacksonville, Tampa and Key West R. R., is situated on the west bank. A little to the north of the point Black Creek, a navigable stream, up which small steamers make weekly trips as far as Middleburg, empties into the St. John's. Three miles above Magnolia are the Green Cove Springs, one of the most frequented resorts on the river, but now more easily reached by rail from Jacksonville. The spring discharges about 3,000 gallons a minute, and fills a pool some thirty feet in diameter with greenish-hued crystal clear water. The water has a temperature of 78° Fahr.; contains sulphates of magnesia and lime, chlorides of sodium and iron, and sulphureted hydrogen; is used both for bathing and drinking; and is considered beneficial for rheumatism, gouty affections, and Bright's disease of the kidneys. Attached to the springs are comfortable bathing-rooms, and close by are several hotels. About 10 miles above, on the same side, is Picolata, the site of an old Spanish settlement, of which no traces now remain. Tocoi (52 miles) is of some importance as the point where connection is made with the St. John's Railroad to St. Augustine, 15 miles distant. Palatka occupies a fine, high plateau with a wide-reaching view up and down the river. It is the head of navigation for steamships, 75 miles from Jacksonville by the river and 36 by railroad. It has railway connection with Gainesville and Ocala *via* the Florida Southern R. R. It has a population of nearly 5,000. In the vicinity are many old, productive, and valuable orange-groves; and on the opposite side of the river, reached by ferry, are the famous groves of Colonel Hart. Palatka is steamboat headquarters for the upper St. John's and its tributaries. Steamers run from Palatka up the Ocklawaha River to Silver Spring, and a railroad—the St. Augustine and Palatka Railway—offers facilities for reaching the sea.

Above Palatka the vegetation becomes more characteristically tropical, and the river narrows down to a moderate-sized stream, widening out at last only to be merged in grand Lake George, Dexter's Lake, and Lake Monroe. The steamers make the run from Palatka to Sanford in about twelve hours. Welaka (25 miles above Palatka), above the entrance to Dunn's Lake, and opposite the mouth of the Ocklawaha River, is the site of what was originally an Indian village, and afterward a flourishing Spanish settlement. Just above Welaka the river widens into Little Lake George, 4 miles wide and 7 miles long, and then into Lake George, 12 miles wide and 18 miles long, one of the most beautiful sheets of water in the world; many islands dot its surface. It is 1,700 acres in extent, and contains one of the largest orange-groves on the river. Volusia (5 miles above Lake George, 137 miles from Jacksonville) is a wood-station, with a settlement of considerable size back from the river. Thirty-five miles above Volusia is Blue Spring, one of the largest mineral springs in the State. It is several hundred yards from the St. John's, but the stream flowing from the spring is large enough at its confluence with the river for the steamers to float in it. Pursuing its voyage to the south, the steamer speedily enters Lake Monroe, a sheet of water 12 miles long by 5 miles wide. On the south side of the lake is Sanford, the metropolis of South Florida, situated at the head of navigation for large steamers on the St. John's. On the opposite side of the lake from Sanford is Enterprise, a popular resort.

Although Sanford is the head of large steamboat navigation on the St. John's, there is for the sportsman still another hundred miles of narrow river, deep lagoons, gloomy bayous, and wild, untrodden land, abounding in game, while the waters teem with fish. Small boats can be obtained to run during the winter through Lake Harney to Salt Lake, the nearest point to the Indian River from the St. John's; and a small steamboat makes frequent excursions through Lake Jessup to Lake Harney. The trip to Lake Harney and back is made in twelve hours. Lake Jessup is near Lake Harney; it is 17 miles long and 5 miles wide, but it is so shallow that it can not be entered by a boat drawing more than three feet of water. The St. John's rises in the elevated savanna before mentioned, fully 120 miles south of Enterprise, but tourists seldom ascend farther than Lake Harney.

INDIAN RIVER.

From Titusville the steamer Rockledge makes daily connection for City Point, Merritt's Island, Cocoa, Rockledge, Eau Gallie, and Melbourne, whence connecting steamers continue the trip to The Narrows, St. Lucie, Jupiter Inlet, and Lake Worth. (See pages 88–90.)

THE OCKLAWAHA.

The Ocklawaha boats start from Palatka at nine o'clock in the morning. The trip occupies all of one day and one night, and until an early breakfast-hour of the second day. The first three hours of the trip are occupied in going up the St. John's to Welaka, a point just opposite the mouth of the Ocklawaha. About midnight the boat passes through "The Gateway of the Ocklawaha," as it is called. This is formed by two immense cypress-trees, growing so close to each other that scarcely enough room is left to allow the boat to pass. About daylight the boat turns suddenly to the right, and the celebrated "Run" is entered. Here the stream becomes a river one hundred feet in width, and runs with a swift current, against which these diminutive steamers make laborious way for nine miles. The bottom is of white sand, and so transparent are its waters that mosses and grasses growing on the bottom, one hundred feet below, can be seen distinctly. At the end of the "Run" the boat crosses the "Silver Spring" and anchors at a wharf on its farther shore. A row-boat awaits the tourist for the purpose of exploring the wonderful spring at leisure. (See page 101.)

LIST OF HOTELS IN FLORIDA OPEN AS WINTER RESORTS.*

Altamont, Orange Co.: Altamont House, Frank A. Cofran, $3.50 to $4.00.†

Belleview. Marion Co.: Hotel Sanitaria.

Brooksville, Hernando Co.: Hernando Hotel, $2.50 to $3.00; Grand View Hotel, $2.00 to $2.50.

Cedar Keys, Levy Co.: Suwannee Hotel, $2.50 to $4.00.

Conant, Sumter Co.: Hotel Conant, $2.00 to $3.00.

Crescent City, Putnam Co.: Grove Hall, $3.00; Putnam House, $3.00.

Daytona, Volusia Co.: Ocean House, $2.50 to $3.00; Palmetto Hotel, $2.00 to $2.50.

De Funiak Springs, Walton Co.: Hotel Chautauqua, $2.00 to $3.00.

De Land, Volusia Co.: Carrollton House, $2.50 to $3.00; Parceland Hotel, $2.50 to $3.00; Putnam House, $2.00 to $3.00.

De Leon Springs, Holmes Co.: De Soto House, $2.00 to $2.50.

Eau Gallie, Brevard Co.: Eau Gallie House, $2.50.

Enterprise, Volusia Co.: Brock House, $4.00.

Eustis, Orange Co.: Eustis House, $2.50 to $3.00; Ocklawaha Hotel, $2.50.

Fernandina, Nassau Co.: Egmont Hotel, $4.00.

Fort Mason, Orange Co.: Lake View House, $2.50.

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* From the "United States (official) Hotel Directory and Railroad Indicator," known as the "Hotel Red-Book." Travelers' Publishing Company, New York.

† Rates given are by the day.

Fort George, Duval Co.: Fort George Hotel.

Gainsville, Alachua Co.: Arlington Hotel, $2.50 to $3.00; Rochemont House, $2.50 to $3.00.

Gulf Hammock, Levy Co.: Gulf Hammock Hotel, $2.50 to $3.00.

Green Cove Springs, Clay Co.: Clarendon Hotel, $4.00; St. Clare Hotel, $3.00 to $4.00; The Pines, $3.00; Morganza Hotel, $1.50 to $2.00.

Interlachen, Putnam Co.: Hotel Lagonda; Interlachen Hotel, $3.00.

Jacksonville, Duval Co.: The Everett, $4.00; St. James, $4.00; The Carleton, $3.00 to $4.00; The Duvál, $3.00 to $4.00; Hotel Oxford, $3.00; Hotel Togni, $3.00; Fremont House, $2.50 to $3.00; The Glenada, $2.50; Windsor Hotel.

Key West, Monroe Co.: St. James Hotel, $3.00; Russell House, $2.50.

Kissimmee, Orange Co.: Tropical Hotel, $3.00 to $4.00.

Kismet, Orange Co.: Hotel Kismet.

Lady Lake, Sumter Co.: Lady Lake House, $3.00.

Lakeland, Polk Co.: Fremont House, $2.50 to $3.00.

Lake Helen, Volusia Co.: Harlan Hotel, $2.00.

Leesburg, Sumter Co.: Grand Central Hotel, $3.00; Leesburg House, $2.00 to $2.50.

Live Oak, Suwannee Co.: Ethel House, $2.00 to $2.50; Live-Oak Hotel, $2.00 to $2.50.

Longwood, Orange Co.: Waltham Hotel.

Madison, Madison Co.: Central Park Hotel, $3.00.

Magnolia, Clay Co.: Magnolia Hotel, $4.00.

Maitland, Orange Co.: Park House.

Mayport, Duval Co.: Atlantic Hotel, $2.00 to $3.00.

Monticello, Jefferson Co.: Madden House, $2.50; The Monticello.

New Smyrna, Volusia Co.: Ocean House, $3.00.

Oak Hill, Volusia Co.: Oak Hill Hotel, $4.00.

Ocala, Marion Co.: Ocala House, $4.00; Aldred House, $2.50 to $3.00; Montezuma Hotel, $2.50 to $3.00.

Orange City, Volusia Co.: De Yarman House, $2.00.

Orange Springs, Marion Co.: Globe Hotel, $2.50 to $3.00.

Orlando, Orange Co.: Charleston House, $3.00; Magnolia House, $2.50 to $3.00; Wilcox House, $3.00; Windsor Hotel, $3.00.

Pablo Beach, Duval Co.: Murray Hall Hotel, $3.00 to $4.00.

Palatka, Putnam Co.: Putnam House, $4.00; Saratoga Hotel, $3.00 to $4.00; Hotel Phœnix, $3.00; Hotel Palatka, $2.50 to $3.00; Graham House, $2.50 to $3.00.

Pensacola, Escambia Co.: Continental Hotel, $3.00 to $4.00.

Ravenswood, Orange Co.: Naylor House, $3.00.

Rock Ledge, Brevard Co.: Hotel Indian River, $4.00; Tropical House, $2.50 to $3.00.

St. Augustine, St. John's Co.: Hotel San Marco, $4.00; Hotel Cordova; Magnolia Hotel, $3.00 to $4.00; Florida House, $3.50 to $4.00; Ponce de Leon Hotel; Carleton House, $3.00.

St. James City, Manatee Co.: San Carlos Hotel.

Sanford, Orange Co.: Sanford House, $4.00; San Leon Hotel, $2.00 to $2.50.

Sarasota, Manatee Co.: New Sarasota House, $2.50 to $3.50.

Seville, Volusia Co.: Grand View House; Hotel Seville, $3.00.

Silver Springs, Marion Co.: Silver Springs Hotel, $3.00.

Spring Garden, Volusia Co.: Highland Park Hotel.

South Lake Weir, Marion Co.: Lake Side Hotel, $2.50 to $3.00.

Tallahassee, Leon Co.: New Leon Hotel, $4.00; St. James Hotel, $2.50 to $3.00.

Tarpon Springs, Hillsborough Co.: Tarpon Springs Hotel.

Tampa, Hillsborough Co.: The Plant Hotel, $4.00; Palmetto Hotel, $3.00 to $4.00; Orange Grove Hotel, $2.00 to $4.00; St. James Hotel, $2.00 to $3.00.

Tangerine, Orange Co.: Wachusett House, $2.50 to $3.00.

Tavares, Orange Co.: Tavares Hotel, $2.50 to $3.50.
Umatilla, Orange Co.: Umatilla House.
Waldo, Alachua Co.: Waldo House, $2.00.
Welaka, Putnam Co.: McClure House, $3.00.
Wellborn, Suwannee Co.: White Sulphur Springs Hotel, $3.00.
Welshton, Marion Co.: Hotel Welshton.
Winter Park, Orange Co.: Seminole House, $4.00.

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